

.....REAL TIME DVR

.....user manual

VDT2504HEŽJ 8 H&) \$(<9!6 ŽJ 8 H&) \$(<9!7
VDT2508HEŽJ 8 H&) \$, <9!6 ŽJ 8 H&) \$, <9!7
VDT2516HEŽJ 8 H&) %<9!6 ŽJ 8 H&) %<9!7



CAUTION

- Please read this user manual carefully to ensure that you can use the device correctly and safely
- We do not warrant all the content is correct. The contents of this manual are subject to change without notice
- This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using the same. Kindly remove the cables from the power source if the device is not to be used for a long period of time.
- Do not install this device near any heat sources such as radiators, heat registers, stoves or other devices that produce heat
- Do not install this device near water. Clean only with a dry cloth
- Do not block any ventilation openings and ensure proper ventilation around the machine
- Do not power off the DVR when the device is functioning. The correct operation to shut down the DVR is to stop recording, use “shut-down” button from the menu, and switch off the main power.
- This machine is for indoor use only. Do not expose the machine in rain or moist environment. In case any solid or liquid get inside the machine’s case, please turn off the device immediately and get it checked by a qualified technician.
- Do not try to repair the device by yourself without technical aid or approval.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google shall belong to the above-mentioned companies.
- This manual is suitable for 4/8/16-channel digital video recorders. All examples and pictures used in the manual are from 16-channel DVR.

Table of Contents

| | | |
|----------|---|-----------|
| 1 | Introduction | 1 |
| 1.1 | DVR Introduction | 1 |
| 1.2 | Main Features | 1 |
| 2 | Hardware Installation | 4 |
| 2.1 | Install Hard Drive & DVD Writer..... | 4 |
| 2.1.1 | Install Hard Drive | 4 |
| 2.1.2 | Install DVD Writer..... | 5 |
| 2.2 | Front Panel Descriptions | 5 |
| 2.3 | Rear Panel Instructions | 6 |
| 2.4 | Remote Controller | 10 |
| 2.5 | Control with Mouse..... | 12 |
| 2.5.1 | Connect Mouse..... | 12 |
| 2.5.2 | Use Mouse..... | 12 |
| 3 | Basic Function Instruction | 14 |
| 3.1 | Startup & Shutdown..... | 14 |
| 3.1.1 | Startup..... | 14 |
| 3.1.2 | Shutdown | 14 |
| 3.2 | Login | 15 |
| 3.3 | Live Preview | 15 |
| 3.3.1 | Live Playback..... | 16 |
| 4 | Main Menu Setup Guide..... | 17 |
| 4.1 | Basic Configuration | 18 |
| 4.1.1 | System..... | 18 |
| 4.1.2 | Date & Time | 19 |
| 4.1.3 | DST..... | 19 |
| 4.2 | Live Configuration | 20 |

| | |
|----------------------------------|----|
| 4.2.1 Live | 20 |
| 4.2.2 Main Monitor | 21 |
| 4.2.3 Spot..... | 21 |
| 4.2.4 Mask | 22 |
| 4.3 Record Configuration | 23 |
| 4.3.1 Enable..... | 23 |
| 4.3.2 Record Bitrate | 23 |
| 4.3.3 Time | 24 |
| 4.3.4 Stamp..... | 24 |
| 4.3.5 Recycle Record..... | 25 |
| 4.3.6 Snap | 26 |
| 4.4 Schedule Configuration | 26 |
| 4.4.1 Schedule | 26 |
| 4.4.2 Motion | 27 |
| 4.4.3 Sensor | 27 |
| 4.5 Alarm Configuration | 28 |
| 4.5.1 Sensor | 28 |
| 4.5.2 Motion | 29 |
| 4.5.3 Video Loss | 31 |
| 4.5.4 Other Alarm | 32 |
| 4.5.5 Alarm Out..... | 32 |
| 4.6 Network Configuration | 33 |
| 4.6.1 Network..... | 33 |
| 4.6.2 Sub-stream | 33 |
| 4.6.3 Email | 34 |
| 4.6.4 Server | 35 |
| 4.6.5 Other Settings..... | 35 |

| | |
|--|-----------|
| 4.7 User Management Configuration..... | 37 |
| 4.8 P.T.Z Configuration | 39 |
| 4.9 Advanced..... | 41 |
| 4.9.1 Reset | 42 |
| 4.9.2 Import/Export | 42 |
| 4.9.3 Block/Allow list | 42 |
| 5 Search , Playback & Backup..... | 43 |
| 5.1 Time Search | 43 |
| 5.2 Event Search..... | 44 |
| 5.3 File Management..... | 45 |
| 5.4 Search by Image | 46 |
| 5.5 Backup | 47 |
| 6 Manage DVR | 47 |
| 6.1 Check System Information | 48 |
| 6.1.1 System Information | 48 |
| 6.1.2 Event Information | 48 |
| 6.1.3 Log Information | 48 |
| 6.1.4 Network Information..... | 48 |
| 6.1.5 Online Information..... | 48 |
| 6.1.6 Record Information | 49 |
| 6.2 Manual Alarm | 49 |
| 6.3 Disk Management | 49 |
| 6.4 Upgrade..... | 49 |
| 6.5 Logoff | 50 |
| 7 Remote Surveillance | 51 |
| 7.1 IE Remote Surveillance | 51 |
| 7.1.1 On LAN | 51 |

| | |
|--|------------|
| 7.1.2 On WAN..... | 51 |
| 7.2 Remote Surveillance through Apple PC | 53 |
| 7.2.1 On LAN | 54 |
| 7.2.2 On WAN..... | 56 |
| 7.3 Remote Preview | 57 |
| 7.4 Remote Playback & Backup | 61 |
| 7.4.1 Remote Playback..... | 61 |
| 7.4.2 Remote Backup | 66 |
| 7.5 Remote System Configuration..... | 67 |
| 7.6 Tools | 68 |
| 7.7 Remote Information | 68 |
| 8 Mobile Surveillance..... | 70 |
| 8.1 By Phones with Windows Mobile OS | 70 |
| 8.2 By Phones with Symbian OS..... | 71 |
| 8.3 By Phones with Iphone OS..... | 73 |
| 8.4 By Phones with Android OS | 81 |
| 8.5 By Phones with Blackberry OS..... | 86 |
| Appendix A FAQ..... | 92 |
| Appendix B Calculate Recording Capacity | 98 |
| Appendix C Compatible Devices..... | 99 |
| Appendix D 4-CH Specifications | 101 |
| Appendix E 8-CH Specifications | 102 |
| Appendix F 16-CH Specifications..... | 103 |

1 Introduction

1.1 DVR Introduction

This model DVR (Digital Video Recorder) is designed especially for CCTV system. It adopts high performance video processing chips and embedded Linux system. Meanwhile, it utilizes many most advanced technologies, such as standard H.264 with low bit rate, Dual stream, SATA interface, VGA output mouse supported, IE browser supported with full remote control, mobile view(by phones), etc., which ensure its powerful functions and high stability. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse, and irrigation and so on.

1.2 Main Features

COMPRESSION FORMAT

- Standard H.264 compression with low bit rate and better image quality

LIVE SURVEILLANCE

- Support HD VGA output
- Support channel security by hiding live display
- Display the local record state and basic information
- Support USB to make full control

RECORD MEDIA

- Support two SATA HDD to record for a longer time without any limitation

BACKUP

- Support USB 2.0 devices to backup
- Support built-in SATA DVD writer to backup
- Support saving recorded files with AVI standard format to a remote computer through internet

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording
- Support full D1 real time recording
- Support recycle after HDD full
- Resolution, frame rate and picture quality are adjustable
- 128MB for every video file packaging
- 4 audio channels available
- Two record search mode: time search and event search
- Support 4/8/16 screen playback simultaneously
- Support deleting and locking the recorded files one by one
- Support remote playback in Network Client through LAN or internet

ALARM

- 1 channel alarm output and 4/8/16 channel alarm input available
- Support schedule for motion detection and sensor alarm
- Support pre-recording and post recording
- Support linked channels recording once motion or alarm triggered on certain channel
- Support linked PTZ preset , auto cruise and track of the corresponding channel

PTZ CONTROL

- Support various PTZ protocols
- Support 128 PTZ presets and 8 auto cruise tracks
- Support remote PTZ control through internet

SECURITY

- Customize user right: log search, system setup, two way audio, file management, disk management, remote login, live view, manual record, playback, PTZ control and remote live view

- Support 1 administrator and 63 users.
- Support event log recording and checking, events unlimited

NETWORK

- Support TCP/IP, DHCP, PPPoE, DDNS protocol
- Support IE browser to do remote view
- Support setup client connection amount
- Support dual stream. Network stream is adjustable independently to fit the network bandwidth and environment.
- Support picture snap and color adjustment in remote live
- Support remote time and event search, and channel playback with picture snap
- Support remote PTZ control with preset and auto cruise
- Support remote full menu setup, changing all the DVR parameters remotely
- Support mobile surveillance by smart phones , symbian, WinCE, Iphone or Gphone, 3G network available
- Support CMS to manage multi devices on internet

2 Hardware Installation

Notice: Check the unit and the accessories after getting the DVR.
Please don't power up the unit till the physical installation is complete.

2.1 Install Hard Drive & DVD Writer

2.1.1 Install Hard Drive

Notice: 1. 4-ch and 8-ch DVR connect to two SATA hard drives or one SATA hard drive plus one Writer; 16-ch DVR connects three SATA hard drives or two hard drives plus one DVD Writer. Please use the hard drive the manufacturers recommend specially for security and safe field , please refer to “Appendix C Compatible Devices 3”.
2. Please calculate HDD capacity according to the recording setting. Please refer to “Appendix B Calculate Recording Capacity”.

Step1: Unscrew and Open the top cover

Step2: Connect the power and data cables. Place the HDD onto the bottom case as Fig 2-1.

Step3: Screw the HDD as Fig 2-2.

Note: For the convenience to install, please connect the power and data cables firstly, and then screw to fix.



Fig 2-1 Connect HDD



Fig 2-2 Screw HDD

2.1.2 Install DVD Writer

Notice: 1. The writers must be the compatible devices we recommend. Please refer to “Appendix C Compatible Devices”
2. This device is only for backup.

Step1: Unscrew and Open the top cover.

Step2: Connect the power and data cables. Place the DVD writer onto the bottom case as Fig 2-3.

Step3: Screw the DVD writer as Fig 2-4



Fig 2-3 Connect the DVD Writer



Fig 2-4 Screw the Writer

2.2 Front Panel Descriptions

Notice: The front panel descriptions are only for reference; please make the object as the standard.

| Item | Type | Name | Description |
|------|----------------------|--------|---|
| 1 | Work state indicator | Power | Power indicator, when connected , the light is blue |
| | | HDD | The light turns blue when writing/ reading HDD, the light is blue |
| | | Net | The light turns blue when it is able to access the network |
| | | Backup | The light turns blue when backing up files and data. |
| | | Play | The light turns blue when playing video |

| Item | Type | Name | Description |
|------|-----------------|------------------|--|
| | | REC | The light turns blue when recording |
| 2 | Compound button | MENU/+ | 1. Enter menu in live 2. Increase the value in setup |
| | | BACKUP/- | 1. Decrease the value in setup 2. Enter backup mode in live |
| | | RECORD/FOCUS | 1. Record manually 2. FOCUS function enables at PTZ mode. |
| | | REW/SPEED | 1. Rewind key 2. SPEED function enables at PTZ mode |
| | | SEARCH/ZOOM | 1. Enter search mode 2.ZOOM function enables at PTZ mode. |
| | | PLAY /IRIS | 1. Enter play interface . IRIS function enables at PTZ mode |
| | | FF/ P.T.Z. | 1. Fast forward 2. Enter PTZ mode in live |
| | | STOP/ESC | 1. Quit play mode 2. Exit the current interface or status |
| 3 | Digital button | 1-9 | Input number 1-9 or choose camera |
| | | 0/10+ | Input number0, 10 and the above number together with other digital keys |
| 4 | Input button | Direction button | Change direction to select items |
| | | Multi-screen | Change screen display mode like1/4/9/16 channel |
| | | Enter button | Confirm selection |
| 5 | IR receiver | IR | For remote controller |
| 6 | USB | USB port | To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse |

2.3 Rear Panel Instructions

The rear Panel interface for 4-ch **VDT2504HE** is shown as Fig 2-5:

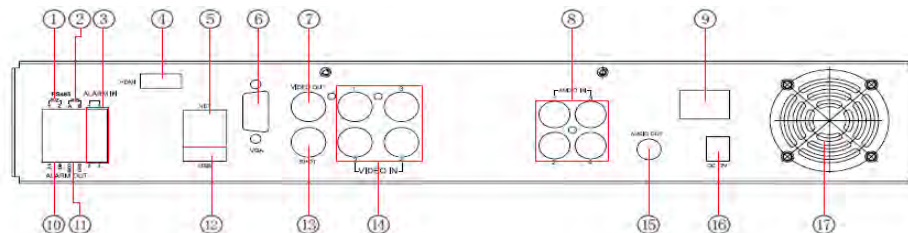


Fig 2-5 Rear Panel for 4-ch

| Item | Name | Description |
|------|--------------|--|
| 1 | P/Z | Connect to speed dome |
| 2 | K/B | Connect to keyboard |
| 3 | ALARM IN | Connect to external sensor1-4 |
| 4 | HDMI port | Connect to high-definition display device (optional) |
| 5 | NET | Network port |
| 6 | VGA port | VGA output, connect to monitor |
| 7 | Video out | Connect to monitor |
| 8 | Audio in | 4 CH Audio input |
| 9 | POWER switch | Power on/off |
| 10 | + 5V and GND | +5 V and Grounding |
| 11 | ALARM OUT | 1-ch relay output. Connect to external alarm. |
| 12 | USB port | To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse |
| 13 | Spot out | Connect to monitor as an AUX output channel by channel. Only video display, no menu show |
| 14 | Video in | Video input channels from 1-4 |
| 15 | Audio out | Audio output, connect to the sound box |

| Item | Name | Description |
|------|-------------|------------------------|
| 16 | POWER INPUT | DC12V |
| 17 | FAN | For cooling the device |

The rear Panel interface for 8-ch **VDT2508HE** is shown as Fig 2-6:

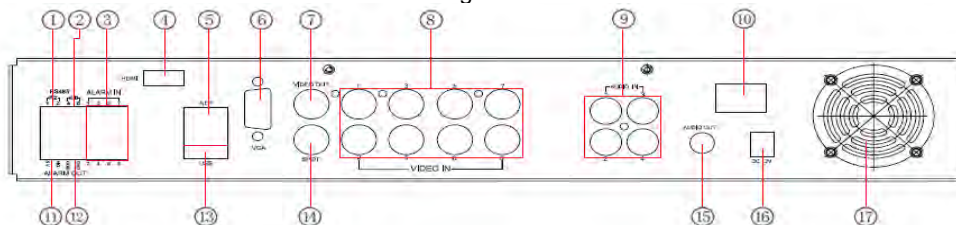


Fig 2-6 Rear Panel for 8-ch

| Item | Name | Description |
|------|--------------|--|
| 1 | P/Z | Connect to speed dome |
| 2 | K/B | Connect to keyboard |
| 3 | ALARM IN | Connect to external sensor1-8 |
| 4 | HDMI port | Connect to high-definition display device (optional) |
| 5 | NET | Network port |
| 6 | VGA port | VGA output, connect to monitor |
| 7 | Video out | Connect to monitor |
| 8 | Video in | Video input channels from 1-8 |
| 9 | Audio in | 4 CH Audio input |
| 10 | Power switch | Power on/off |
| 11 | + 5V and GND | +5 V and Grounding |
| 12 | ALARM OUT | 1-ch relay output. Connect to external alarm. |
| 13 | USB port | To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse |

| Item | Name | Description |
|------|-------------|--|
| 14 | Spot out | Connect to monitor as an AUX output channel by channel. Only video display, no menu show |
| 15 | Audio out | Audio output, connect to the sound box |
| 16 | POWER INPUT | DC12V |
| 17 | FAN | For cooling the device |

The rear Panel interface for 16-ch **VDT2516HE** is shown as Fig 2-7:

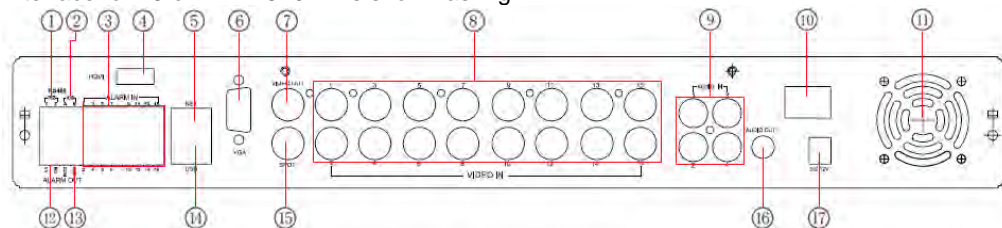


Fig 2-7 Rear Panel for 16-ch

| Item | Name | Description |
|------|--------------|--|
| 1 | P/Z | Connect to speed dome |
| 2 | K/B | Connect to keyboard |
| 3 | ALARM IN | Connect to external sensor1-16 |
| 4 | HDMI port | Connect to high-definition display device (optional) |
| 5 | NET | Network port |
| 6 | VGA port | VGA output, connect to monitor |
| 7 | Video out | Connect to monitor |
| 8 | Video in | Video input channels from 1-16 |
| 9 | Audio in | 4 CH Audio input |
| 10 | Power Switch | Power on/off |
| 11 | FAN | For cooling the device |

| Item | Name | Description |
|------|--------------|--|
| 12 | + 5V and GND | +5 V and Grounding |
| 13 | ALARM OUT | 1-ch relay output. Connect to external alarm. |
| 14 | USB port | To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse |
| 15 | Spot out | Connect to monitor as an AUX output channel by channel. Only video display, no menu show |
| 16 | Audio out | Audio output, connect to the sound box |
| 17 | POWER INPUT | DC12V |

2.4 Remote Controller

It uses two AAA size batteries.

- Open the battery cover of the Remote Controller.
- Place batteries. Please take care of the polarity (+ and -).
- Replace the battery cover.

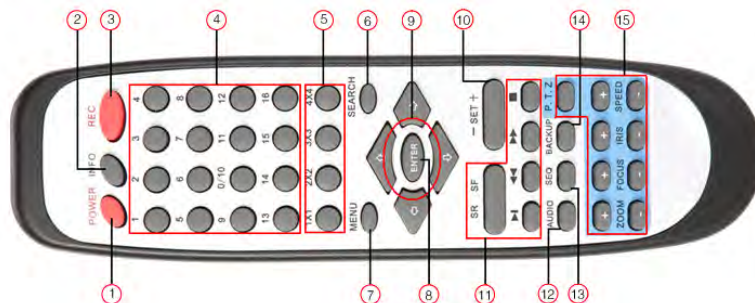


Fig 2-8 Remote Controller

| Item | Name | Function |
|------|-------------------------|--|
| 1 | Power Button | Soft switch off to stop firmware running. Do it before power off. |
| 2 | INFOR Button | Get information about the DVR like firmware version, HDD information |
| 3 | REC Button | To record manually |
| 4 | Digital Button | Input digital or choose camera |
| 5 | Multi Screen Button | To choose multi screen display mode |
| 6 | SEARCH Button | To enter search mode |
| 7 | MENU Button | To enter menu |
| 8 | ENTER Button | To confirm the choice or setup |
| 9 | Direction Button | Move cursor in setup or pan/tilt PTZ |
| 10 | +/- Button | To increase or decrease the value in setup |
| 11 | Playback Control Button | To control playback, Fast forward/rewind/stop/single frame play |
| 12 | AUDIO Button | To enable audio output in live mode |
| 13 | Auto Dwell Button | To enter auto dwell mode |
| 14 | BACKUP Button | To enter backup mode |
| 15 | PTZ Control Button | To control PTZ camera: Move camera/zoom/focus/iris/speed control |

Note: Key points to check in case the remote doesn't work.

1. Check batteries polarity.
2. Check the remaining charge in the batteries.
3. Check IR controller sensor for any masking.
4. Check the ID of the remote with respect to the DVR.

If it still doesn't work, please try using a good known remote, or contact your dealer.

The interface of remote controller is shown in Fig 2-8 Remote Controller.

Operation processes with remote controller to control multi-DVR

The default device ID of the DVR is 0. It's not necessary to reset the device ID when a remote is to be used to control a single DVR. However when controlling multiple DVRs with multiple remote controllers, you would need to configure the device ID, please refer to below steps:

- Activate remote controller to control the DVR: Turn the IR sensor of the remote controller towards the IR receiver on the front panel, press the number key 8 twice on the remote, then input device ID of the DVR to be controlled (Range from: 0-65535; the default device ID is 0) and press ENTER to confirm.
- You can check the device ID of a DVR from System Setup→Basic→Device ID. You can also set multiple DVRs with the same device ID however this can cause interference if the DVRs are kept close to each other.

2.5 Control with Mouse

2.5.1 Connect Mouse

It supports USB mouse through the ports on the rear panel.

Notice: If mouse is not detected or doesn't work, check below steps:

1. Make sure the mouse is plugged in the USB mouse port not the USB port on the front panel.
2. Try with a good know mouse.

2.5.2 Use Mouse

During live:

Double-click on any camera window for the full screen mode. Double-click again to return to the previous screen mode.
Right click to reveal the control menu on the screen. Right click to hide the control menu.

In Configuration:

Click to enter a particular option. Right click to cancel the option or to return to the previous menu.

In order to input a value in a particular screen, move cursor to the input box and click. An input window will appear as Fig 2-9. It supports digits, alphabets and symbols as inputs. Click Shift button to input Capital letters and symbols; click Shift button again to return.

You can change some values using the mouse wheel, such as time. Move cursor onto the value and roll the wheel when the value blinks.

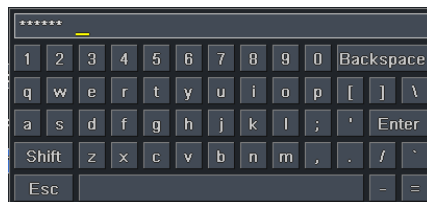


Fig 2-9 Digital Numbers and Letters Input Window

It supports mouse drag. For e.g. setting up motion detection area, click customized, hold down the left button and drag to set motion detection area.

Setting up Schedule: hold left button and drag to set schedule time.

In Playback:

Click to choose the options. Right click to return to live mode.

In Backup:

Click to choose the options. Right click to return to previous picture.

In PTZ Control:

Click left button to choose the buttons to control the PTZ. Click right button to return to live.

Note: Mouse is the default tool for all operations unless an exception, as indicated.

3 Basic Function Instruction

3.1 Startup & Shutdown

Please make sure all the connections are done properly before you power on the unit. Proper startup and shutdown are crucial to expanding the life of your DVR.

3.1.1 Startup

Step1: Connect with the source power.

Step2: The device will boot and the power LED would turn blue.

Step3 A WIZZARD window will be pop-up and show some information about time zone , time setup , network configuration, record configuration and disk management. User can setup here and refer to the concrete setup steps from the corresponding chapters. If users don't want to setup Wizard, please click Exit button to exit.

Note: This DVR can only display options on either VGA monitor or BNC monitor at a given point of time, if there is live image display without menu options then please check if there is display on other device/monitor, or long press ESC key to wait for login dialog box to appear. Long press ESC key can switch the output between BNC and VGA

3.1.2 Shutdown

You can shut down the device by using IR remote controller and mouse.

By IR remote controller:

Step1: Press Power button. This will bring up a shutdown window. The unit will shut down by clicking “OK” button.

Step2: Disconnect the power

By mouse:

Step1: Enter into Menu and select “Shut Down” icon. This will take you to a shutdown window.

Step2: Click OK. Then the unit will power off after a while.

Step3: Disconnect the power

3.2 Login

User can login or log off the DVR system. Once logged off the user cannot do any other operation except changing the multi-screen display.

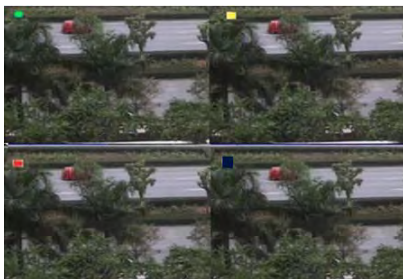
Notice: The default user name and password is “admin” and 123456”

For complete operational steps for changing password, adding or deleting users , please refer to section 4.7 User Management Configuration.



Fig 3-1 Login

3.3 Live Preview



| Symbol | Meaning |
|--------|-------------------------|
| Green | Manual record |
| Yellow | Motion detection record |
| Red | Sensor Alarm record |
| Blue | Schedule record |

Fig 3-2 Live Preview Interface

3.3.1 Live Playback


Click Play  button to play the record. Refer to Figure3-3. User can do complete operation by clicking the buttons on screen.



Fig 3-3 Live Playback

4 Main Menu Setup Guide

Right click or press ESC button on the front panel to display the menu toolbar on the bottom of the screen. Refer to Fig 4-1:



Fig 4-1 Main Menu Toolbar

Click icon to select a channel and then click " None" button to select another channel so that picture-in-picture effect will be displayed.

Dwell: Dwell means to display live images from different cameras in a sequence. The images may be displayed as a single channel or in a grid fashion from different cameras. Dwell mode is enabled only when the chosen display mode is not able to display all the available cameras.

Color: If this button is enabled, you can adjust the color of live images.

E-Zoom: Single channel large screen electronic amplification.

Volume: Enable sound.


PTZ: Click the PTZ button to control rotation position, speed and auto scan of the PTZ connected to the IP camera.

Snap: Use this button to take snapshots. These pictures will automatically be saved in the HDD.

Record: Click this button to start/stop recording.

Playback: Click this button to playback the recorded files.

User can click button and drag it anywhere with the left mouse

Click Menu  button to pop up a window as Fig 4-2; you can also press MENU button on the front panel or operate with remote controller to display the main menu. Clicking Setup icon will pop-up the configuration menu:

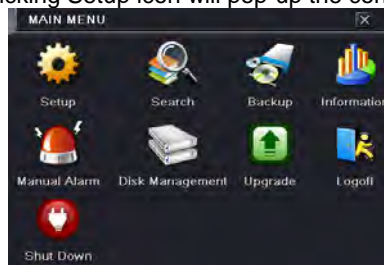


Fig 4-2 System Setup

4.1 Basic Configuration

Basic configuration includes three sub menus: system, date & time and DST.

4.1.1 System

Step1: Enter into Menu→Setup→Basic→System. Refer to Fig 4-3:

Step2: In this interface you can setup the device name, device ID, video format, max network user, VGA resolution and language. The definitions for every parameters display as below:

Device Name: The name of the device as it may display on the client end or on CMS, this would help the user to recognize the device remotely.

Device ID: This ID is used to map the DVR with IR remote controller and speed dome cameras.

Video Format: Two modes: PAL and NTSC. User can select the video format according to the cameras being used.

Password Check: If enabled the user would need to input the user name and the password for performing corresponding



Fig 4-3 Basic Configuration-Basic

operations.

Show System Time: If selected, displays the current time during live monitoring...

Max Online Users: To set the maximum number of concurrent user logins in the DVR.

Show wizard: If selected, the GUI would launch the startup wizard on every boot, allowing the user to do basic setup.

VGA resolution: The resolution of live display interface, ranges from: VGA800*600, VGA1024*768, VGA1280*1024 and CVBS.

Note : *Switching between VGA and CVBS will change the menu output mode. Please connect to relevant monitor.*

Language: To setup the menu language.

Note: After changing the language and video output, the device needs to login again.

Logout After (Minutes): You can setup the screen interval time (30s, 60s, 180s, 300s). If there is no any operation within the setting period, the device will auto logout and return to the login interface.

No Image When Logout: If selected, there will be no image showing when logout.

4.1.2 Date & Time

Step1: Enter into Menu→Setup→Basic→Date & Time tab. Refer to Fig 4-4:

Step2: Set the date format, time format, time zone in this interface; checkmark “sync time with NTP server” to refresh NTP server date; user can also adjust system date manually.

Step3: Click “Apply” to save the setting; click “Exit” to exit the current interface.

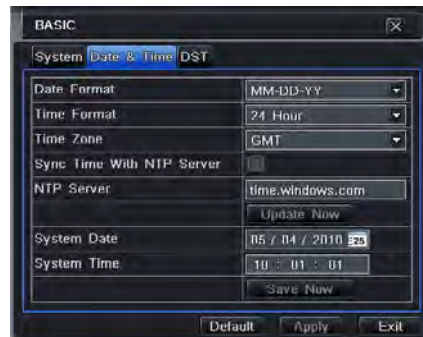


Fig 4-4 Basic Configuration-Date & Time

4.1.3 DST

Step1: Enter into Menu→Setup→Basic→DST interface. Refer to Fig 4-5:

Step2: In this interface, enable daylight saving time, time offset, mode, start & end month/week/date, etc.

Step3: Click “default” button to restore default setting; click “Apply” button to save the setting; click “Exit” button to exit the current interface.



Fig 4-5 Basic Configuration-DST

4.2 Live Configuration

Live configuration includes four submenus: live, main monitor, spot and mask.

4.2.1 Live

In this interface, user can setup camera name, adjust colors: brightness, hue, saturation and contrast.

Step1: Enter into Menu→Setup→Live→Live tab. Refer to Fig 4-6:

Note: A soft keyboard will pop up by clicking the camera name. User can self-define the camera name.

Step2: For a particular camera/channel setting, please click “setting” button to see a window as Fig 4-7:

Step3: In this tab, user can adjust brightness, hue, saturation and contrast in live; click “default” button to restore default setting, click “OK” button to save the setting.

Step4: Select “All” to setup all channels with the same parameters.





Fig 4-6 Live Configuration→Live



Fig 4-7 Live-Color Adjustment

4.2.2 Main Monitor

Step1: Enter into Menu→Setup→Live→Main Monitor tab. Refer to Fig 4-8:

Step2: Select split mode: 1×1, 2×2, 2×3, 3×3, 4×4 and channel. Click  button to setup the previous channel group. Click  button to set the latter channel group.

Step3: Set the dwell time.

Step4: Click “default” to restore default setting; click “Apply” to save the setting; click “Exit” to exit the current tab.





Fig 4-8 Live Configuration-Main Monitor

4.2.3 Spot

Step1: Enter into Menu→Setup→Live→Spot tab. Refer to Fig 4-9:

Step2: Select split mode: 1×1 and map the channel.

Step3: Set the dwell time.

Step4: Select the split mode and then setup current picture group. Click  button to setup the previous channel groups of dwell picture. Click  button to set the latter channel groups of dwell picture.

Step5: Click “Apply” button to save the setting; Click “Exit” button to exit the current tab.



Fig 4-9 Live Configuration-Spot

4.2.4 Mask

You can setup private mask area on the live image picture. For a given channel a maximum of three areas can be masked.

Setup mask area: Click Setting button, enter into live image to press left mouse and drag mouse to set mask area. Please refer to the below picture. Right click to exit. Click Apply button to save the setting.

Delete mask area: Select a certain mask area and double click to delete that mask area. Then click Apply button to save the setting.



Fig 4-10 Live Configuration-Mask



Setup Mask Area



Live Image Mask Area

4.3 Record Configuration

Record configuration includes six sub menus: enable, record bit rate, time, recycle record, stamp and snap.

4.3.1 Enable

Step1: Enter into Menu→Setup→Record→Enable tab. Refer to Fig 4-11:



Fig 4-11 Record Configuration-Enable

Step2: Checkmark record and audio.

Step3: Select All to setup the same settings for all channels.

| Parameter | Meaning |
|-----------|---|
| Record | To enable/disable recording for the channel |
| Audio | To enable/disable audio recording for the channel |

4.3.2 Record Bitrate

Step1: Enter into Menu→Setup→Record→Record Bitrate tab. Refer to Fig 4-12:

Step2: Setup rate, resolution, quality, encode and max bit stream.

Step3: Select "All" to set same settings for all channels.

Step4: Click "default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.

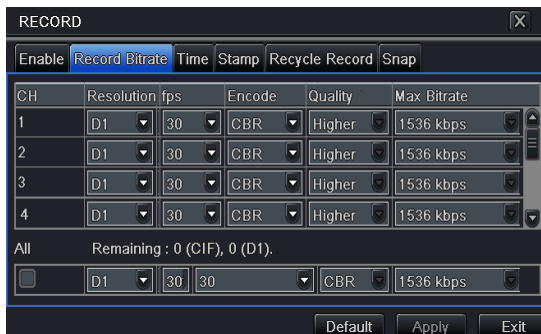


Fig 4-12 Record Configuration-Record Bitrate

| Parameter | Meaning |
|-----------------------|--|
| Rate | Range from: 1-30(NTSC) 1-25(PAL) |
| Resolution | Support CIF , HD1, D1 |
| Quality | The higher the value is, the clearer the recorded image is. Six options: lowest, lower, low, medium, higher and highest. |
| Encode | VBR and CBR |
| Max bit stream | Range from: 256kbps~2Mbps |

4.3.3 Time

Step1: Enter into Menu→Setup→Record→Time interface. Refer to Fig 4-13:

Pre-alarm record time: The record time prior to actual triggering of an alarm i.e. record time before motion detection or a sensor alarm was triggered.

Post-alarm record: Set the post recording time after the alarm is finished, five options: 10s, 15s, 20s, 30s, 60s, 120s, 180s and 300s.

Expire time: The time till which the records would be retained. If the set date is overdue, the recorded files will be deleted automatically.

Step2: Select "All" to setup all channels with the same parameters.

Step3: Click "Apply" to save the setting; click "Exit" to exit the current interface.

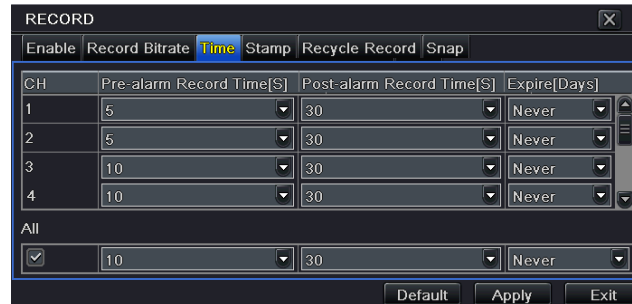


Fig 4-13 Record Configuration-Time

4.3.4 Stamp

Stamp : This provides an option to enable or disable the Camera Name and the Time stamp on the video. You can also choose a position for the stamp on the screen.

Step1: Enter into Menu→Setup→Record→Stamp tab. Refer to Fig 4-14:

Step2: Checkmark camera name and time stamp; click Setting button. User can use cursor to drag the camera name and time stamp at random positions. Refer to below Figures:

Step3: Select “All” to setup all channels with the same parameters.

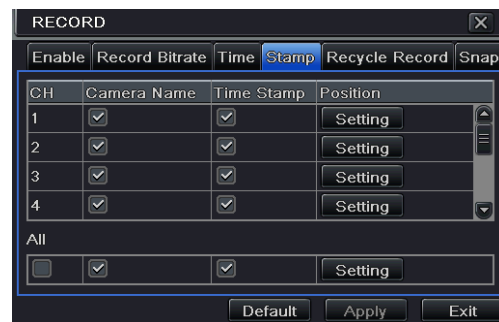
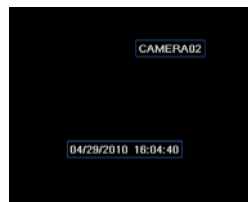


Fig 4-14 Record Configuration-Stamp



Before Drag



After Drag

4.3.5 Recycle Record

This option is used to recycle the HDD space once it is full. If enabled, the system will automatically delete the old records (FIFO, recycling space) and recycle the space if it is completely utilized. The setting steps are as follows:

Step1: Enter into Menu→Setup→Record→Recycle Record tab.

Step2: Checkmark the 'recycle record' box to activate the auto recycling.

Step3: Click “Apply” button to save the setting; click “Exit” button to exit the current interface.

Note: If the option is disabled or not selected, the DVR would stop recording once the HDD is full.

4.3.6 Snap

In this interface, user can set up Resolution, quality, snap interval, snap number.

4.4 Schedule Configuration



Schedule configuration includes three sub menus: schedule, motion and alarm.

4.4.1 Schedule

This tab allows defining schedule for normal recording for seven days of a week, 24 hours of a day. Every row denotes an hourly timeline for a day. Click the grid to do relevant setup. A highlighted area denotes selected timeline.

Step1: Enter into Menu→Setup→Schedule tab. Refer to Fig 4-15.

Step2: Select channel and double-click to pop up a window as Fig 4-16. Now you can edit week schedule:

Click “” button to add a certain day schedule; click “” button to delete the selected schedule;

Copy: Copy the specified schedule to other dates.

If you want to copy the schedule settings of a channel to other or all channels, you just need to select channel and click “Copy” button.

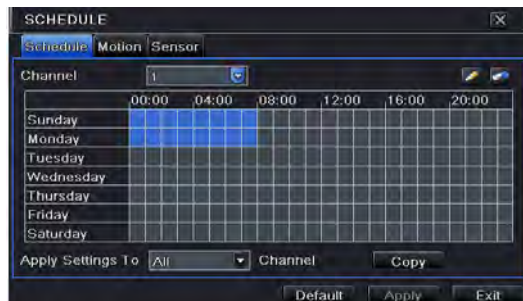


Fig 4-15 Schedule Configuration-Schedule

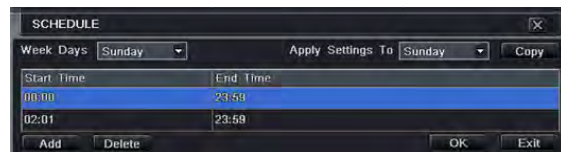


Fig 4-16 Schedule-Week Schedule

4.4.2 Motion

This tab allows to setup schedule for motion based recording.

Step1: Enter into Menu→Setup→Schedule→Motion tab. Refer to Fig 4-17:

Step2: The setup steps for schedule for motion based recording are similar to normal schedule setup. You can refer to 4.4.1 Schedule for details.

Note: The default schedule of motion based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables motion based recording for 24x7. If you want to activate motion based recording, you must enable motion alarm and setup schedule for motion alarm (Refer to Chapter 4.5.2 Motion Alarm for more details).

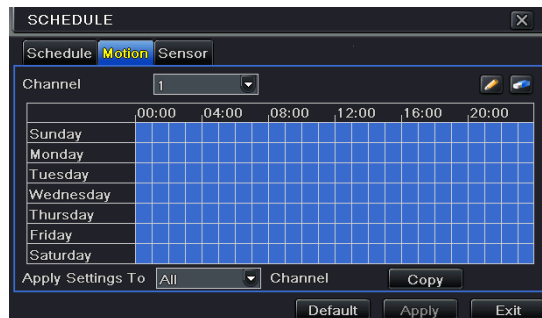


Fig 4-17 Schedule Configuration-Motion

4.4.3 Sensor

This tab allows to setup schedule for sensor based recording.

Step1: Enter into Menu→Setup→Schedule→Sensor tab. Refer to Fig 4-18:

Step2: The setup steps for schedule for sensor based recording are similar to normal schedule setup (Refer to 4.4.1 Schedule for details).

Note: The default schedule of sensor based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables sensor based recording for 24x7. If you want to activate sensor based recording, you must enable sensor alarm and setup schedule for sensor alarm (Refer to Chapter 4.5.1 for more details).



Fig 4-18 Schedule Configuration-Sensor

4.5 Alarm Configuration

Alarm configuration includes five sub menus: sensor, motion, video loss, other alarm and alarm out.

4.5.1 Sensor

Sensor includes three sub menus: basic, alarm handling and schedule.

Operate the following steps to configure sensor alarm:

Step1: Enter into Menu→Setup→Alarm→Sensor→Basic tab. Refer to Fig 4-19:

Step2: Enable channels by checking the checkboxes beside the desired channels.

Step 3: Set the alarm type according to triggered alarm type. Two option: NO and NC.

Step4: Click “Apply” button to save settings.

Step5: Enter into Alarm Handling tab. Refer to Fig 4-20.

Select hold time and then click Setting button. A dialog box will pop-up as Fig 4-21:



Fig 4-19 Alarm configuration-Sensor-Basic



Fig 4-20 Alarm Configuration-Sensor-Alarm Handling

Step 6: Enter into alarm tab to select the options to handle alarm.

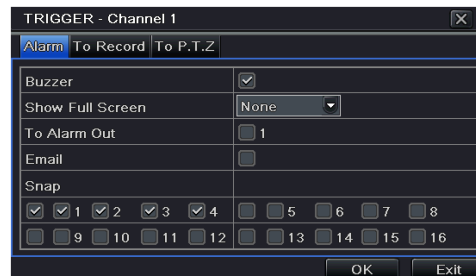


Fig 4-21 Alarm Handling-Trigger

Buzzer: If selected, the local inbuilt buzzer would be activated on an alarm.

Full screen alarm: If selected, there will pop up the chosen channel on the monitor on an alarm trigger.

To alarm out: If selected, this would trigger the external relay output on detecting a sensor based alarm.

Email: If you select this option, the DVR will send an email alert to the preconfigured email address in case of a sensor based alarm from the particular input.

Snap: If selected, the system will snap images of the checked channels on an alarm and save them in the HDD automatically.

Step 7: Enter into To Record tab. Select recoding channels. It would be recorded in case of an alarm. Click OK button to save the setting.

Step 8: Enter into To PTZ tab. Set preset, cruise and track options for a PTZ in case of a sensor based alarm. Single or multiple PTZ units could be programmed to perform this function on the same alarm.

Step9: Enter into Schedule tab. Refer to Fig 4-22. The setup steps for schedule for sensor based alarm are similar to normal schedule setup. You can refer to Chapter 4.4.1 Schedule for more details. This step is very important for sensor alarm. Even if you have enabled the sensor alarm for all channels and setup the trigger, you will not see the result of sensor alarm if no schedule is added.

If you have set the schedule for sensor based recording in the same timeline, recordings can also be triggered.

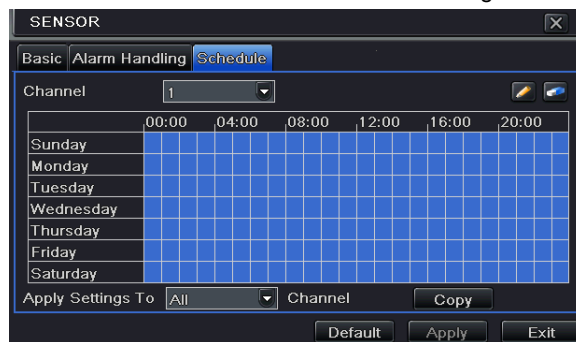


Fig 4-22 Sensor-Schedule

4.5.2 Motion

Motion includes two sub menus: motion and schedule.

The steps to set up motion alarm are as follows:

Step1: Enter into Menu→Setup→Alarm→Motion tab. Refer to Fig 4-23:



Fig 4-23 Alarm Configuration-Motion

Step2: Enable motion alarm, set alarm hold time which refers to the time till which the system will wait for further detection of motion. Eg. If the holding time is set to 10 seconds, once the system detects a motion, it will go into alarm but would not detect any other motion alarm (specific to channel) until 30 seconds. If there is other motion detected during this period, it is considered it as continuous movement, otherwise it will be considered as a single motion.


Step3: The setup steps of motion trigger are similar to 'Alarm Handling'. You can refer to Chapter 4.5.1 Sensor → Alarm Handling for more details.

Step4: Click "Setting" button under the Area to display the following picture as shown in Fig 4-24:

Step5: In the Area tab, you can drag slide bar to set the sensitivity value (1-8). The higher the value is the more sensitive it is to motion. Since the sensitivity is influenced by color and time (day or night), you can adjust its value according to the practical conditions. Left click the grid and drag to delete area. Drag again to add area. Click icon to set the whole area as detection area. Click icon to clear the set detection area. Click icon to test the sensitivity as per the local conditions. Once motion is sensed, it displays a figure icon. Click icon to save the setting. Click icon to exit the current interface.



Fig 4-24 Motion-Area

Note: Prior to setting motion detection field it is recommended that you click  icon to clear the existing field and set afresh.

Step6: Select "All" to setup all channels with the same parameters.

Step7: Click "Apply" button to save the setting.

Step 8: Enter into Schedule tab. The setup steps for schedule for motion based alarm are similar to normal schedule setup; you can refer to 4.4.1 Schedule for details. This step is very important for motion based alarm. Even if you have enabled the motion based alarm for all channels and setup the trigger, you will not see the result of motion based alarm if no schedule is added.

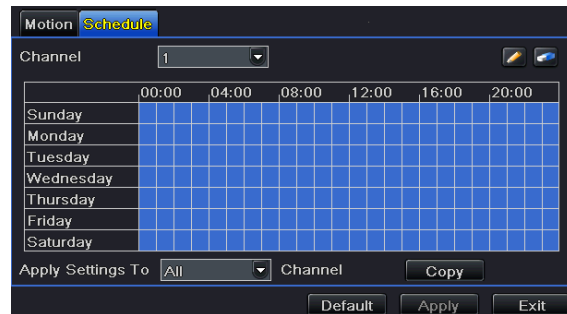


Fig 4-25 Motion-Schedule

If you have set the schedule for sensor based recording in the same timeline, recordings can also be triggered.

4.5.3 Video Loss

Step1: Enter into Menu→Setup→Alarm→Video Loss tab. Refer to Fig 4-26:

Step2: The setup steps of video loss trigger are similar to alarm handling. You can refer to Chapter 4.5.1 Sensor →alarm handling for more details.

Step3: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.



Fig 4-26 Video Loss

4.5.4 Other Alarm

This tab gives a choice to configure alarm for Disk Full, IP Conflict, the Disconnect event, Disk Attenuation or Disk Lost.

Step1: Enter into Menu→Setup→Other alarm interface. Refer to Fig 4-27:

Step 2: Use the dropdown menu and select the event or the alarm.

Step 3: Check the required trigger options.

If the selected event is “Disk Full”, then use the drop down box for “Disk Shortage Alarm” to choose a threshold value for remaining HDD space. If the threshold value is reached, the system will trigger the Disk Full Alarm.

Click “Apply” to save settings; Click “Exit” to exit the current interface



Fig 4-27 Other Alarm

4.5.5 Alarm Out

Alarm out includes three sub menus: alarm out, schedule and buzzer

To setup alarm out:

Step 1: Enter into Menu→Setup→Alarm out tab. Refer to Fig 4-28. Input relay name and hold time.

Step 2: Select the Schedule tab. This will bring up the schedule setup interface. The setup steps for schedule for alarm out are similar to normal schedule setup; you can refer to 4.4.1 Schedule for details.

This step is very important for alarm out. Even if you have enabled alarm out in the motion based alarm or sensor based alarm, you will not see the result of alarm out if no schedule is added here.

Buzzer

It is an inbuilt alarm output device. To setup Buzzer:

Step1: Enter into Menu→Setup→Alarm out →Buzzer tab;

Step2: Checkmark Buzzer and set buzzer alarm hold time. This would trigger the buzzer when the system is in alarm.

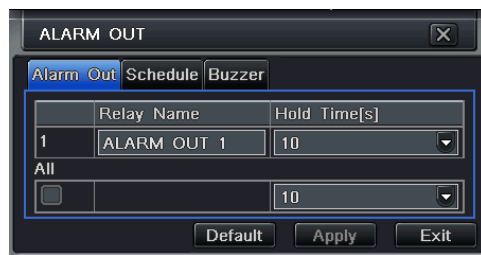


Fig 4-28 Alarm Out

4.6 Network Configuration

Network configuration includes five submenus: network, sub stream, Email, server and other settings. Network settings must be configured if DVR is used for monitoring over network.

4.6.1 Network

Step 1: Enter into Menu→Setup→Network→network tab. Refer to Fig4-29:

Step 2: HTTP port: the default value is 80. If the value changed, you need to modify the IP address in the IE address .i.e. if HTTP port is set to 82 and IP address is, **192.168.0.25**, then you shall input IP address as **http://192.168.0.25:82** in IE browser.

Server port: Communication port.

Step 3: Connect internet. If you have a DHCP server running and would like your DVR to automatically obtain an IP address and other network settings from that server, check the checkbox beside "Obtain an IP address automatically". Then the device will distribute IP address, subnet mask, and gateway IP and DNS server. If you want to configure your own settings, please input the IP address, Subnet mask, Gateway DNS server manually. You can also check the PPOE checkbox to enable this feature and then enter username and password. Once the setup is completed, your DVR will automatically dial up into your network.

Step 4: No matter what kinds of way to connect internet, you should test the effectiveness of the network by clicking "Test" button after you setup the network.

Step 5: If the network is well connected, please click "Apply" button to save settings.

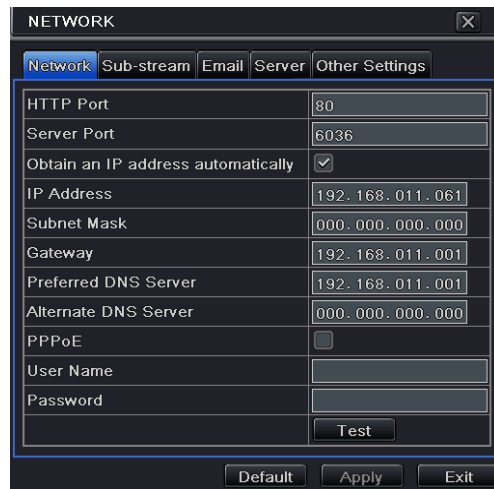


Fig 4-29 Network Configuration-Network

4.6.2 Sub-stream

Step 1: Enter into Menu→Setup→Network →Sub-stream tab. Refer to Fig 4-30:

Step 2: Select fps, resolution, quality, encode and max bit rate

Step 3: Select "All" to setup all channels with the same parameters.



Fig 4-30 Network Sub-stream

| Parameter | Meaning |
|--------------------|---|
| FPS | Range from: 1-6 (PAL) |
| Resolution | Support CIF |
| Quality | The higher the value is, the clearer the record image. Six options: lowest, lower, low, medium, higher and highest. |
| Encode | VBR and CBR |
| Max Bitrate | Range from: 32kbps~728kbps |

4.6.3 Email

Step 1: Enter into Menu→Setup→Network→Email tab. Refer to Fig 4-31:

SMTP Server/Port: The name and port number of SMTP server. Check the SSL checkbox if the server requires a secure connection (SSL); user can setup mail servers (such as Gmail) as required.

Send address/password: Sender's email address/password

Receive address: Receiver's email address. Here user can add at least three mail addresses. Click TEST button to test the validity of the mailbox.

Attaching image: After selecting it, the system will attach images when sending the emails.

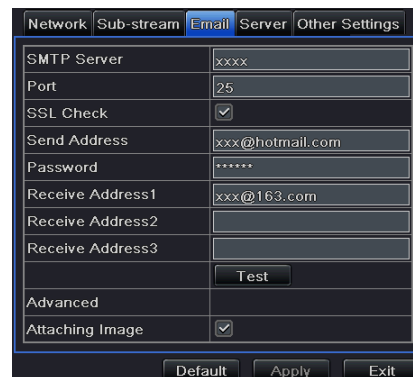


Fig 4-31 Network Configuration-Email

4.6.4 Server

This function is mainly used for connecting ECMS. The setting steps are as follows:

Step 1: In the server tab, select “enable” as shown in the Fig 4-32.

Step 2: Check the IP address and port of the transfer media server in the ECMS. The default server port for auto report is 2009. If it is modified, please enter into the transfer media interface to check.

Step 3: Enable the auto report in the ECMS when adding a new device. Then input the remaining information of the device in the ECMS. After that, the system will auto allot a Device ID. Please check it in the ECMS.

Step 4: Input the above-mentioned server IP, server port and device ID in the server interface. Then click “Apply” button to save settings. Now, the ECMS system will automatically connect this device.

The screenshot shows the 'Server' tab selected in the Network Configuration window. The 'Enable' checkbox is checked. The 'Server' field contains the IP address '192.168.3.123'. The 'Server Port' field contains '2009'. The 'Device ID' field contains '382'. At the bottom, there are buttons for 'Default', 'Apply', and 'Exit'.

| Network | Sub-stream | Email | Server | Other Settings |
|-------------|------------|-------------------------------------|---------------|----------------|
| Enable | | <input checked="" type="checkbox"/> | | |
| Server | | | 192.168.3.123 | |
| Server Port | | | 2009 | |
| Device ID | | | 382 | |

Fig 4-32 Network Configuration-Server

4.6.5 Other Settings

If your DVR is setup to use PPPoE as its default network connection, you may setup DDNS to be used in connection. The setting steps are as follows:

Step 1: Select Other Settings tab. Enable DDNS server.

Step2: Select DDNS server.

Step 3: Input user name, password and host domain name registered in the DNS website (See the following example).

Step 4: Click TEST to test the effectiveness of the relevant information.

Step 5: Click “Apply” button to save the settings.

Note: The domain name server that selected by user is a banding domain name of DVR. User should logon the website which provided by the server supplier to register a user name and password firstly, and then apply for a domain name on line.

Once applied, user can access the server from the IE client by using that domain name.

The screenshot shows the 'Other Settings' tab selected in the Network Configuration window. The 'DDNS' checkbox is checked. The 'DDNS Server' dropdown menu is set to 'www.dvrdydns.com'. The 'User Name', 'Password', and 'Host Domain' fields are empty. The 'DDNS Update[Hours]' dropdown menu is set to '3'. There is a 'Test' button. The 'UPnP' checkbox is checked. At the bottom, there are buttons for 'Default', 'Apply', and 'Exit'.

| Network | Sub-stream | Email | Other Settings |
|--------------------|------------|-------------------------------------|------------------|
| DDNS | | <input checked="" type="checkbox"/> | |
| DDNS Server | | | www.dvrdydns.com |
| User Name | | | |
| Password | | | |
| Host Domain | | | |
| DDNS Update[Hours] | | | 3 |
| | | | Test |
| UPnP | | <input checked="" type="checkbox"/> | |

Fig 4-33 Other Settings

Enable UPnP: Select UPnP here and then enable UPnP function in your router. Therefore, there is no need for you to forward LAN IP address and port in the router in connection of internet. After that, you can check the WAN IP address in the router.

- How to apply for a domain name?

Here we take www.dyndns.com for example.

Step 1: Input www.dyndns.com in the IE address bar. Click "Free Trial of DynDNS Pro"→"Start the trial" to register.

Step 2: Input hostname, select service type and input your IP address. The picture is shown as follows:

Hostname: abc . dyndns.tv

Wildcard Status: Disabled [[Want Wildcard support?](#)]

Service Type:
☒ Host with IP address [[?](#)]
☐ WebHop Redirect [[?](#)]
☐ Offline Hostname [[?](#)]

IP Address: 210.21.229.138
[Your current location's IP address is 210.21.229.138](#)
[TTL](#) value is 60 seconds. [Edit TTL](#).

Mail Routing: ☐ Yes, let me configure Email routing. [[?](#)]

Step 3: Click "Add to cart". Then Dynamic DNS Hosts dialog box will be displayed.

Step 4: Create user account. For example, the username is "bcd", password is "123456".

Username: bcd

Password:

Confirm password:

Email: abc@yahoo.com.cn

Confirm Email: abc@yahoo.com.cn

Security Image:
Enter the numbers from the above image:
52517

Subscribe to:
☐ DynDNS.com newsletter (1 or 2 per month)
☐ Dyn Inc. press releases

☒ I agree with the [acceptable use policy \(AUP\)](#) and [privacy policy](#).

[Create Account](#)

Click "Create Account" button to create user account. After that, you shall provide your card number, card expiration and security code as well as billing address. Finally click "sign up for trial" button.

Now, according to the domain name registration of "DDNS", the domain name for DVR is "abc.dyndns.tv", username is "bcd" and password is "123456"

Connect DVR via network:

Step 1: Enter into Main menu→Network→other settings, checkmark DDNS, select "Dyndns" at the DDNS Sever pull down list box and input user name and password.

Step 2: Enter into configuration interface of the router to map the server port and IP address (if the user enables UPnP function, he can skip this step). Click Save button to save the setting

Step 3: Login IE browser and input registered domain name "http://www.abc.dyndns.tv" to connect DVR.

Definitions and descriptions of network configuration:

| DDNS server | |
|-----------------|--|
| DDNS server | Website provided by dynamic domain name supplier. The optional: www.meibu.com , www.dyndns.com, www.no-ip.com and mintdns type. |
| User name | User name for log in the website of domain name supplier |
| Password | Password for log in the website of domain name supplier |
| Host domain | The domain name user registered at the supplier's website. |
| Update interval | The interval time of upgrading DVR IP address |

4.7 User Management Configuration

This tab allows you to add normal or advanced users. To add user and setup user authority:

Step 1: Enter into Menu→Setup→User management configuration. Refer to Fig 4-34:

Step 2: Click Add button to display a dialog box as Fig 4-35:

Step 3: In General tab, input username, password and select user type. You can also check 'Binding PC MAC Address' and input this address.

Step 4: Click 'OK' button to save settings.

Note: When the default value of binding PC MAC address is 0, the user is not bound with the specified computer. If the bind option is used, the user would be able to log into the DVR only through the specific computer (carrying the MAC address).

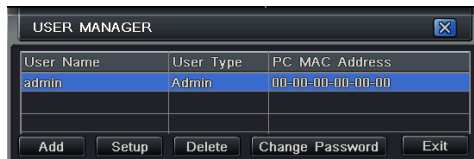


Fig 4-34 User Management Configuration

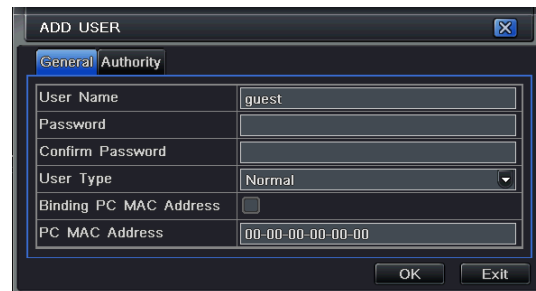


Fig 4-35 Add-General

Step 5: Select Authority tab and then assign the operation rights for particular user. Refer to fig 4-36.

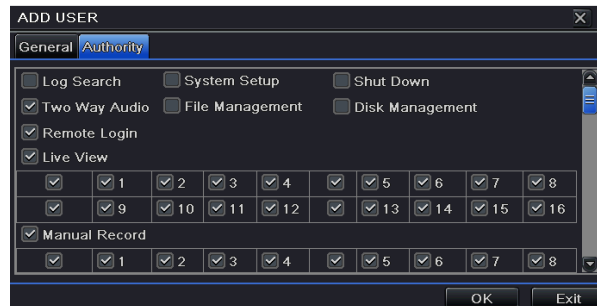


Fig 4-36 Add User-Authority

If you want to delete the user, please select the user you want to delete in the user list box and then click “Delete” button.
 If you want to modify the user, please select the user you want to modify in the user list box and then click “Setup” button to modify its general information and authority.
 If you want to change password of a user, please select the user in the user list box and then click “Change Password” button.

4.8 P.T.Z Configuration

P.T.Z configuration includes two submenus: serial port and advanced settings.

Serial port settings are as follows:

Step 1: Enter into Menu→Setup → P.T.Z →Serial port tab. Refer to Fig 4-37:

Step 2: Select “enable” and setup the value of address, baud rate and protocol according to the settings of the speed dome.

Step 3: Configure all channels with the same parameters by selecting the “All” box and then doing the relevant setup.



Fig 4-37 P.T.Z Configuration-Serial Port

| Parameter | Meaning |
|-------------------|---|
| Address | The address of the PTZ device |
| Baud rate | Baud rate of the PTZ device. Range form: 110, 300, 600, 1200, 2400, 4800, 9600, 19200, 34800, 57600, 115200, 230400, 460800, 921600. |
| Protocol | Communication protocol of the PTZ device. Range from: NULL, PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110, HY, N-control. |
| Simulative Cruise | If enabled, no matter whether the PTZ device supports cruise or not, the presets will cruise. |

Advance settings are as follows:

Step 1: Enter into Menu→Setup→ P.T.Z →Advanced tab. Refer to Fig 4-38:

Step 2: In the Advanced tab, click preset “Setting” button to see a dialog box as Fig 4-39:

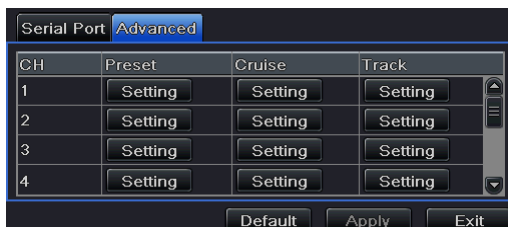


Fig 4-38 P.T.Z Configuration-Advanced

Step 3: In the preset setting tab, while clicking Setting button, a dialog will pop-up as Fig 4-40:

- User can control the dome by rotating up, down, left, right and adjust the rotating speed zoom, focus and iris of the dome;
- Select the serial number of the preset point. Click button to enable the PTZ wiper and click button to enable the PTZ light.

Note: PTZ must support wiper and light function and these two buttons are just available when selecting PELCOP or PELCOD.

- Click Save button to save the settings, click icon to hide the tool bar, right click to view the toolbar again; click icon to exit the current interface.
- In the preset interface, click OK button to save the setting; click Exit button to exit the current interface.

Step4: In the Advanced tab, while clicking cruise “Setting” button, a dialog box will pop-up as Fig 4-41:

- Click Add button to add cruise line in the list box (max 8 cruise line can be added); select a cruise line and click Setup button to see a dialog box as Fig 4-42:



Fig 4-39 Advanced-Preset

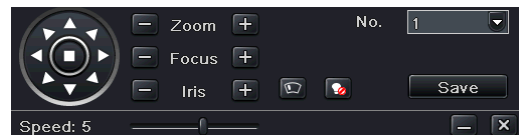









Fig 4-40 Preset Setting



Fig 4-41 Cruise Setting

- Click Add icon  to set the speed and time of preset point; select a preset point and then click Delete icon  to delete that preset point; click Modify icon  to modify the setting of a preset point. User can click     icons to adjust the position of preset point. Click Preview button to preview the cruise line; click OK button to save the setting; click Exit button to exit the current interface.
- Select a preset point in the cruise line list box. Click Delete button to delete that cruise line; click Clear all button to clear all cruise line from the list box; click OK button to save the setting; click Exit button to exit the current interface.

Step5: In the Advanced tab, while clicking track "Setting" button, a dialog box will pop-up as Fig 4-43:



Fig 4-42 Cruise Setting-Modify Cruise Line

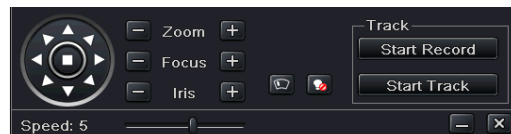




Fig 4-43 Track Setting

- User can control the dome by rotating up, down, right, left and can adjust the rotating speed and zoom, focus and iris of the dome; click Start Record button and move the PTZ in the required manner to record by the DVR. Click this button again can stop recording. Click Start track button to play recorded track. Click this button again can stop the playback.
 - Click  icon to hide the tool bar and right click to view the toolbar again. Click  icon to exit the current tab.
- Step 6: After the completion of settings, click "Apply" button to save settings.

4.9 Advanced

Advanced configuration includes three submenus: Reset, Import/Export and Block/Allow list.

4.9.1 Reset

This would reset the system to factory defaults and reboot the DVR.

4.9.2 Import/Export

User can export the data files into mobile storage devices as backup and can also import specified data files from mobile storage device to DVR.

4.9.3 Block/Allow list



Fig 4-44 Block/Allow List

Here authorized user can prohibit computer users within a certain IP address range from accessing DVR or allow computer users within a certain IP address range to access DVR. For example, if an admin don't want computer users within IP address range from 196.168.000.002 to 196.168.000.004 to access the DVR, he can checkmark 'Block list' option, and then input such IP address range. If it is required that computer users within a certain IP address range access DVR, they can checkmark "Allow list option", and then do the required configuration.

5 Search , Playback & Backup

Search configuration includes four submenus: time search, event search, file management and image.

5.1 Time Search

Step1: Enter into Menu→Search→Time search tab. Refer to Fig 5-1:

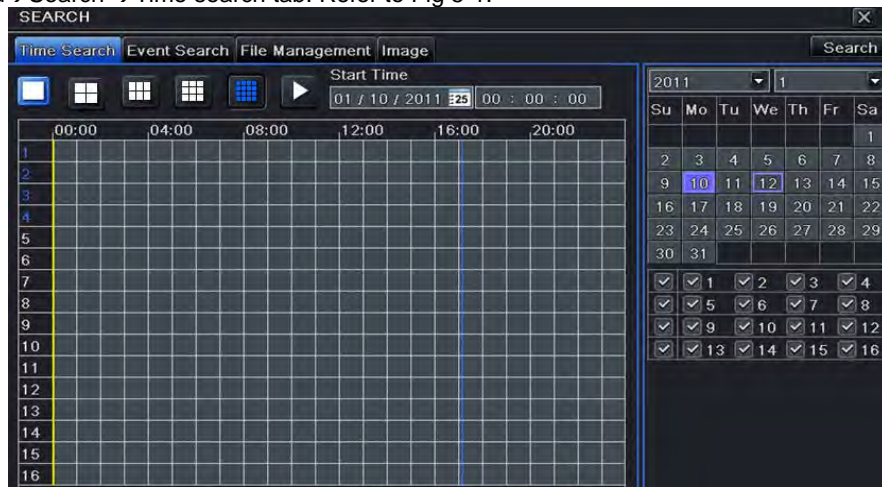

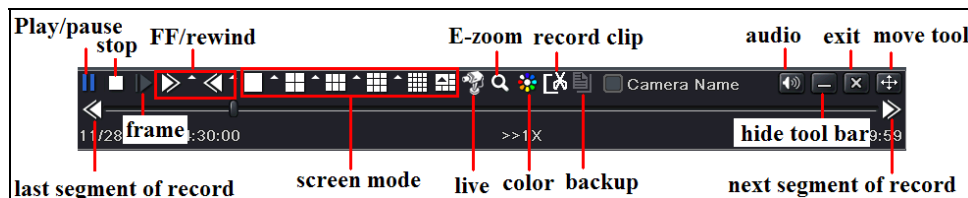


Fig 5-1 Search Configuration-Time Search

Step2: Select date and channels on the right hand side and press “Search” button. A date with highlighted borderline indicates presence of data.


Step3: Set the start time by clicking a particular grid or by entering the specific value in the start time field.

Step4: Select the channel display mode and click  button to play record. Use the playback toolbar to control the playback.





Playback buttons

Note: When the monitor resolution is set to VGA800*600, Part of the time search interface will be hidden. Click the “Expand to” button to expand the whole interface.

Click  button to select channels to show live images in the playback interface. Only four channels at most can be selected to display live images.

The method of record backup during a certain period in the playback interface:

Select the start time by dragging the slider and click  icon. Then select the end time and click this icon again to confirm the record period. Next, click  icon to backup the record during this period.

5.2 Event Search

Step1: Enter into Menu→Search→Event Search tab. Refer to Fig 5-2:

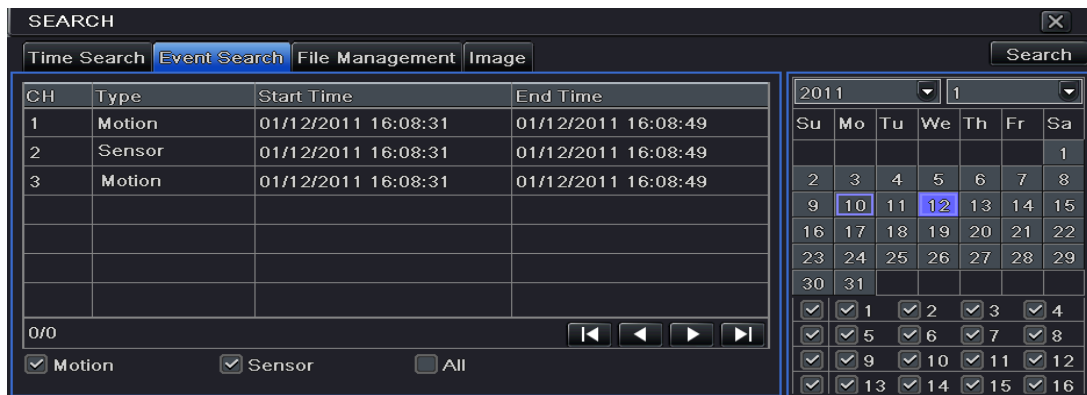


Fig 5-2 Search Configuration-Event Search

Step 2: Select date and channels on the right hand side. A data with highlighted borderline indicates presence of data.

Step 3: Then checkmark Motion, Sensor or All accordingly. You can search for motion based recording and sensor based recording.

Step 4: Press "Search" button to display the searched event information in the event list box.

Step 5: Double click the event item to play the record.

5.3 File Management

Step1: Enter into Menu→Search→File Management tab. Refer to Fig 5-3:

Step 2: Select date and channels. The date with highlighted borderline indicates presence of data.

Step 3: Press "Search" button to display the searched files in the file list box.

Step 4: Use "All" button to lock/unlock or delete all files in the file management column.

Step 5: Double click an unlocked item to playback.

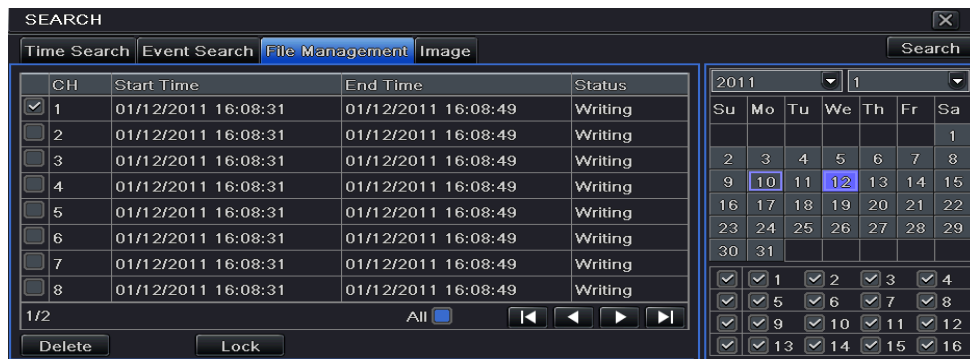


Fig 5-3 Search Configuration-File Management

Lock: Select a file and click Lock button to lock this file. Once locked, the file cannot be deleted.

Unlock: Select a locked file and click Lock button to unlock this file

Delete: Select an unlocked file and click Delete button to delete this file.

5.4 Search by Image

Step 1: Enter into Menu→Search→Image tab.

Step 2: Select data and channels on the right hand side.

Step 3: Press “Search” button to search for a recorded image.

Step 4: Once an alarm image has been identified, the user can double click the image to play the recording.

You can lock the image by clicking “Lock” button. Click “Save” button to copy the image on the HDD. Click “Save All” to copy all images on the HDD.

Note: In order to take images on alarm, the snapshot feature should be activated in “Alarm Handling” for different kind of alarms. Please refer to 4.5 Alarm Configuration for details.

5.5 Backup

This unit supports backup by built-in SATA DVD Writer or USB flash drive. User also can make backup by IE browser via internet. Refer to 7.3.2 Remote backup.

Step1: Enter into main menu → Backup interface. Refer to Fig 5-4:

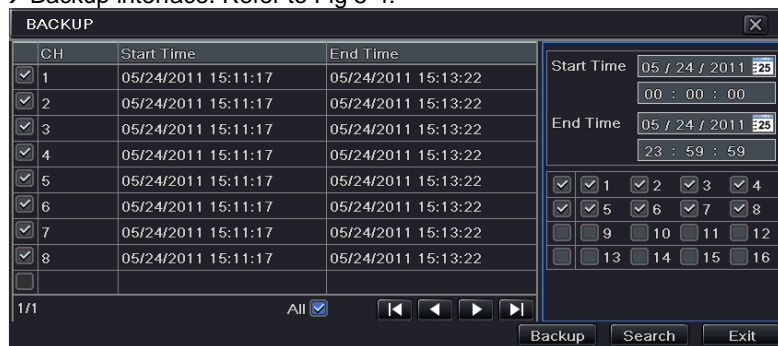


Fig 5-4 Backup Configuration

Step2: Set the start & end time, select channels and click Search button to display the searched data in the data backup list box
 Step3: Select a required file or checkmark "All" to select all data files. Click Backup button to display Backup information window.

Step4: In the backup information interface, user can check the relevant options for backing up files. These options include storage Media, backup player and save file type. Then click Start button to start backup.

Note : If the backup files are saved in DVR format, please check backup player. Only this player can play these files in DVR format. If the backup files are saved in AVI format, you can play these files with common media player.

6 Manage DVR

6.1 Check System Information

Check system information includes six submenus: system, event, log, network, online user and record information.

6.1.1 System Information

In this tab, user can check the hardware version, MCU version, kernel version, device ID, etc.

6.1.2 Event Information

In this tab, you can search for events like motion, sensor and video loss. The utility provides an interface to have a date based and a channel based search. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.3 Log Information

In this tab, you can search for relevant logs as per the set date and event which includes operation, setup, playback, backup, search, check information and error. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.4 Network Information

In this tab, you can check relevant parameters of network.

6.1.5 Online Information

In this tab, you can check the details of the connected online users.

Refresh: refresh the current interface.

Disconnect: Disconnect the online users to access DVR. If this function is used by the admin, the particular PC will not be able to access the device for five minutes. .

6.1.6 Record Information

In this tab, a user can check resolution, ftp and record status including sensor based recording, motion based recording, manual recording or schedule recording.

6.2 Manual Alarm

In this tab, user can trigger a manual alarm.

6.3 Disk Management

1. Format the disk

Step1: Enter into disk management tab.

Note: please format the hard disk before recording. If not formatted, it will show the status of the disk-free space, and total space at the bottom of screen.

Step2: Click Refresh button to refresh the disk information in the list box;

Step3: Select a hard disk and click Format button to start format.

Note: All recorded files in the hard disk will be lost once it is formatted.

2. Advanced

User may check model, S/N, firmware, health status of the disk in this interface. User also can monitor the temperature, internal circuit, dielectric material of the disk, analysis the potential problems of the disk and warn so as to protect its data.

6.4 Upgrade

The DVR can be upgraded by using USB flash drive. Get the upgrading software from your vendor when there is a new software version.

Upgrade Steps:

Step 1: Copy the upgrade software which gets from vendor into the USB storage device


Step 2: Connect the USB flash drive to the USB port.

Step 3: Enter Menu→Upgrade tab. Then the upgrade software name would be displayed in the upgrade list box.

Step 4: Select that software and then click upgrade button. It will upgrade automatically.

Note: Please wait for a while when the system reboots. Never cut off power during upgrading. The original configuration will be reserved after upgrade.

6.5 Logoff

Enter into Menu → Logoff tab. A log off dialogue box will popup. The device will log off by clicking “OK” button. If you want to log in again, click  icon to enter into user name and password to re-login.

7 Remote Surveillance

7.1 IE Remote Surveillance

In order to view the DVR from a network it must be connected to a LAN/WAN or internet. The network setup should be done accordingly. Please refer to 4.6 Network Setup. This DVR supports IE browser, on Windows XP and Vista platform.


7.1.1 On LAN

Step 1: Enter into the DVR's Main Menu→Setup→Network tab to input IP address, Subnet Mask, etc .If using DHCP, please enable DHCP in both the DVR and the router.

Step 2: Enter Record Setup to set network video parameters like resolution, frame rate etc.

Step 3: Open IE on a computer on the same network. Input the IP address of the DVR in IE address bar and press enter.

Step 4: IE will download ActiveX component automatically. Enter the username and password in the subsequent window

 **Notice:** If HTTP port is not 80, other number instead, need add the port number after IP address. For example, set HTTP port as 82, need input IP address like 192.168.0.25:82.

User name and password here are the same with that used on the DVR. The default is admin and 123456.

7.1.2 On WAN

There are two ways for the DVR to connect to internet.

1. Connect the DVR to internet through router or virtual server

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the DVR and router.

Step 2: Forward IP address and port number in Virtual Server setup of the router or virtual server (If the user has enabled the UPnP function in both the DVR and router, he can skip this step). Configure the firewall to allow accessing the DVR.

Note: Port forwarding settings may be different in different routers and server. Please refer to the router's manual for details.

Step 3: Open IE browser, input IP address, or dynamic domain name and enter. If HTTP port is not 80, add the port number after IP address or domain name.

Step 4: IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

Note: If you cannot download and install ActiveX, please refer to FAQ Q8.



Fig 7-1 View with IE Browser

2. Connect the DVR to internet through PPPoE directly.

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The DVR will connect to the server and would give a confirmation message.

Step 2: When accessing the remote interface of DVR, user can input WAN IP to access directly (user can enter into Main menu→Information→Network interface to check IP address).

Step 3: If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the DVR or router. Then add to the DVR or router.

Step 4: The following setting steps are as the same as Step3 and Step4 in Point 1.

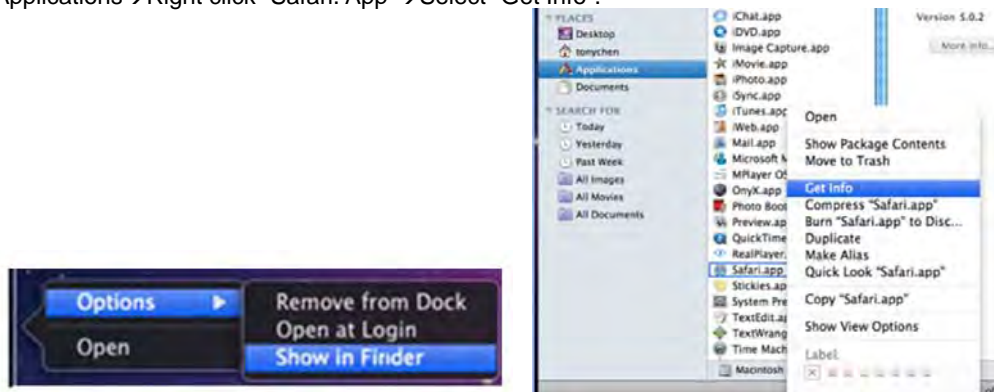
7.2 Remote Surveillance through Apple PC

Note: Because the current plug-in version of client end just only supports 32-bit mode, so the safari browser shall start 32-bit mode. If the browser is the earlier MACOS version, the default setting is 32-bit mode and the setting can be skipped.

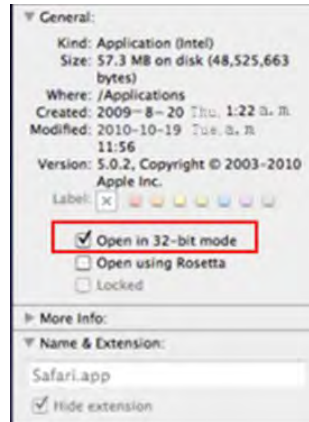
The Setting steps are as follows:

First: Right click safari icon and select “Show in Finder”.

Second: Select Applications→Right click “Safari. App”→Select “Get Info”.



Third: Select “open in 32- bit mode”.



7.2.1 On LAN


Step 1: After starting Apple computer, click Apple icon. The following window will pop up. Please select “System Preferences”→”Internet &Wireless”→click “Network”




Step 2: Enter into Network interface and then click “Ethernet Connected” to check the internet connection of Apple PC.



Step 3: After acquiring the IP address, Subnet Mask and so on, please enter into the DVR's Main Menu→Setup→Network interface to manually input IP address, Subnet Mask and Gateway according to the configuration of PC. The network segment should be the same as the PC. If using DHCP, please enable DHCP in the DVR and router.

Step 4: After finishing the above information, users can enter LAN IP and http port in the Safari browser. For example: input <http://192.168.1.100:81> (here 192.168.1.100 is LAN IP of DVR, 81 is the http port of DVR). Click “” button, the browser will download Active X control as shown below:



Step 5: Click  icon and then select the Active X control, the welcome interface will be shown. Click “Continue”→”Install”

button , the following window will pop up :



Input the name and password of Apple PC and then click “OK” to install this Active X control.

Step 6: After finishing installing the Active X control, please quit from the Safari browser. Right click Safari icon on the desktop and then select “Quit” button to quit the browser. Then restart Safari browser. Input the IP address and http port to enter into the login interface of DVR.

7.2.2 On WAN

There are also two ways for DVR to connect to Internet.

1. Connect the DVR to internet through router or virtual server

Step 1: The network setups are the same as step one to step four of point 1 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

2. Connect the DVR to internet directly.

Step 1: The network setups are the same as step one of point 2 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port or domain name in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

7.3 Remote Preview

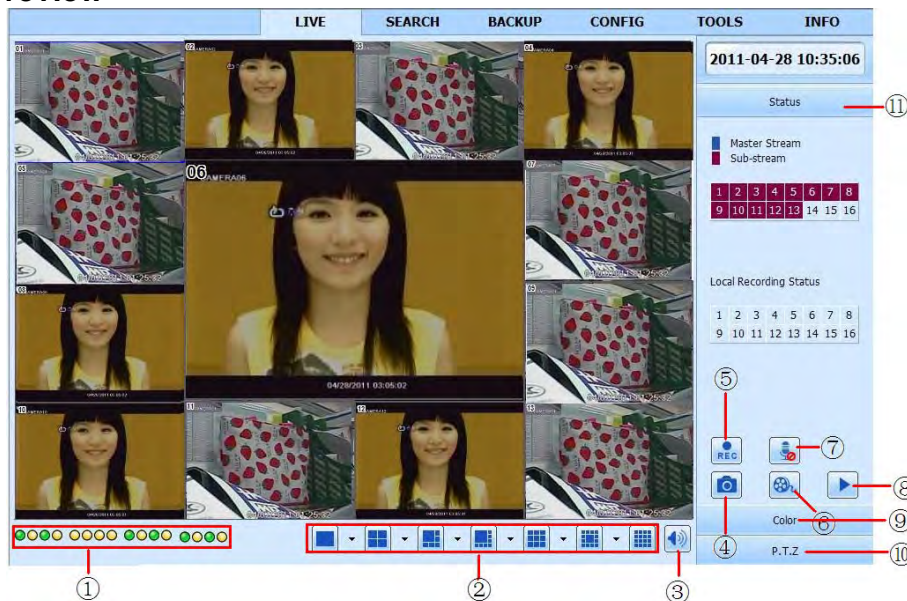



Fig 7-2 Remote Live Preview

Symbol and function Definitions:

| | | | | | |
|---|--------------------|---|--------------------------|---|-----------------|
| ① | Channel indicator | ② | Screen display mode | ③ | Volume |
| ④ | Snapping picture | ⑤ | Start manual record | ⑥ | Start IE record |
| ⑦ | Bidirectional talk | ⑧ | Playback | ⑨ | Color |
| ⑩ | PTZ control | ⑪ | Master/sub stream status | | |

Note: click  button to record manual and the record file will be saved in user's PC.

Screen display mode:

Click the  icon beside the screen display mode, channel select dialog will appear as below:


Take 8-channel view for example: user can checkmark 8 channels from 1-ch to 16-ch at random to display the live pictures, A maximum of 16 channels can be selected.

Then click OK button to confirm the setting.

| | | | | |
|---|--|--|--|--|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> 01 | <input checked="" type="checkbox"/> 02 | <input checked="" type="checkbox"/> 03 | <input checked="" type="checkbox"/> 04 |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> 05 | <input checked="" type="checkbox"/> 06 | <input checked="" type="checkbox"/> 07 | <input checked="" type="checkbox"/> 08 |
| <input type="checkbox"/> | <input type="checkbox"/> 09 | <input type="checkbox"/> 10 | <input type="checkbox"/> 11 | <input type="checkbox"/> 12 |
| <input type="checkbox"/> | <input type="checkbox"/> 13 | <input type="checkbox"/> 14 | <input type="checkbox"/> 15 | <input type="checkbox"/> 16 |
| <input type="button" value="OK"/> <input type="button" value="Cancel"/> | | | | |




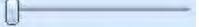

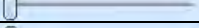

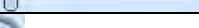


Fig 7-3 Channel Selection

Snap pictures

The system will automatically capture pictures and save those pictures in the computer by clicking “Snap”  icon, User should set up the path for those picture in the Configuration→Local configuration.

Color adjustment:


Drag the slide bar to adjust Brightness, Contrast, Hue, and Saturation. Click Default to reset them to original value.











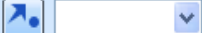





| Buttons | Description |
|---|---|
|   | Drag the scroll bar to adjust the brightness of channel |
|   | Drag the scroll bar to adjust the contrast of channel |
|   | Drag the scroll bar to adjust the saturation of channel |
|   | Drag the scroll bar to adjust the hue of channel |
|  | Click this button to recover the default value of brightness, contrast, saturation and hue. |
|  | Save the adjustment |

PTZ control

Please connect speed dome to the device via RS485 firstly. Make sure the protocol of the speed dome is supported by the device and is configured accordingly in the DVR. User can move the dome up, down, right, left and adjust rotation speed, Iris and zoom, focus and set the presets, etc.

Buttons definition:

| Buttons | Description |
|---|---|
|  | ▲to rotate the dome upwards. ▼ to rotate the dome diagonally up-left. ▼to rotate the dome diagonally up-right ▼ to rotate the dome downwards. ▲ to rotate the dome diagonally down-right ▲ to rotate the dome diagonally down-left ▲to rotate the dome towards left. ▲to rotate the dome towards right ■ to stop rotating the dome. |

| | |
|---|---|
|  | Drag the scroll bar to adjust rotating speed of the dome. |
|  | 'Iris' button. Click  button near 'Iris' button to increase light of the dome. Click  button near 'Iris' button to decrease light of the dome. |
|  | 'Zoom' button. Click  button near 'Zoom' button to zoom in the locale picture of this camera. Click  button near 'Zoom' button to zoom out the locale picture of this camera. |
|  | 'Focus' button. Click  button near 'Focus' button to have long focus. Click  button near 'Focus' button to have short focus. |
|  | Go to the Preset |
|  | Select and do auto cruise |
|  | Track |
|  | Auto scan |
|  | Wiper button |
|  | Light button |

Click the right mouse on the live interface to display a pull-down menu as below

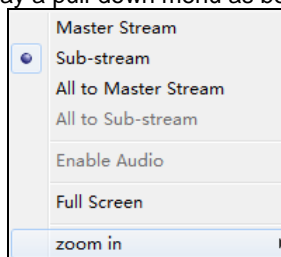


Fig 7-4 Right Key Sub Menu

Stream: This DVR supports master stream and sub stream. Master stream has higher frame rate, max 25 fps (PAL) /30 fps (NTSC) for every channel, but it needs higher network bandwidth; second stream has low frame rate, max 6FPS (PAL) /7FPS (NTSC) for every channel, but it requires low network bandwidth as compared to the master stream. Therefore, users can select the stream according to their bandwidth.

All to master/sub stream: Set all channel to master stream or sub stream.


Enable audio: Enable or disable audio

Full screen: The live preview picture will display in full screen and the tool bar will be hidden; double click left or click right mouse to return.

Zoom in: Single channel large screen electronic amplification. Click the channel which needs to be zoomed. Right click to select zoom in button to zoom in the image. Double click or right click to exit.

7.4 Remote Playback & Backup

7.4.1 Remote Playback

Click  button to enter into record playback interface, refer to Fig 7-5:

Select the record date and channels and double-click the file name in the record file list box. Then user can play that file and preview the picture.



Fig 7-5 Play Record File Interface

This DVR supports remote time search, event search and file management.

By Time Search:

Step1: Enter into Search→Time search. Refer to Fig 7-6:

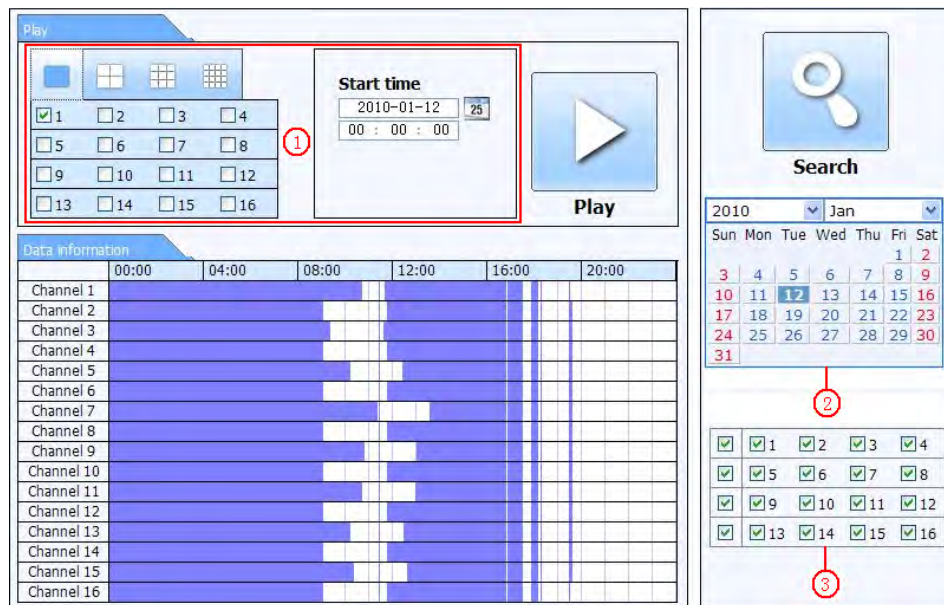


Fig 7-6 Time Search Interface

Step2: The highlight date in the area② indicates recorded data. Select the date in the area ② and record channels in area③

Step3: Click “Search” button. The record data will be displayed in the data information list box;

Step 4: Set the Start time and display mode in the area① as required

Step 5: Click “play” button to playback

Step 6: Click the relevant buttons in the interface for operation, like FF, pause, change channel mode, research, etc. Please refer to Fig 7-7:

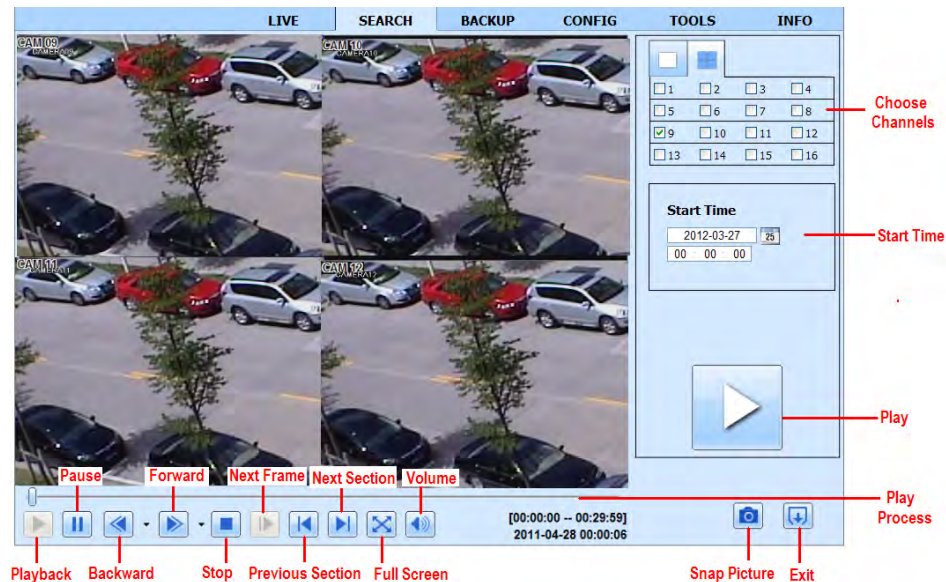


Fig 7-7 Playback by Event Search

By Event Search:

Step1: Enter into Search→Event Search. Refer to Fig 7-8:

Event list

| CH | Start time | End time | Type |
|----|---------------------|---------------------|--------|
| 1 | 2010-01-09 00:01:07 | 2010-01-09 00:02:16 | motion |
| 1 | 2010-01-09 00:03:28 | 2010-01-09 01:24:11 | manual |
| 1 | 2010-01-09 00:08:36 | 2010-01-09 00:09:31 | motion |
| 1 | 2010-01-09 00:10:10 | 2010-01-09 00:10:58 | motion |
| 1 | 2010-01-09 00:11:30 | 2010-01-09 00:12:15 | motion |
| 1 | 2010-01-09 00:14:48 | 2010-01-09 00:15:43 | motion |
| 1 | 2010-01-09 00:15:45 | 2010-01-09 00:17:09 | motion |
| 1 | 2010-01-09 01:24:11 | 2010-01-09 02:46:11 | manual |
| 1 | 2010-01-09 02:46:11 | 2010-01-09 03:19:45 | manual |
| 1 | 2010-01-09 17:39:52 | 2010-01-09 17:57:12 | manual |
| 2 | 2010-01-09 00:01:07 | 2010-01-09 00:01:53 | motion |
| 2 | 2010-01-09 00:02:18 | 2010-01-09 00:03:01 | motion |
| 2 | 2010-01-09 00:03:01 | 2010-01-09 00:04:12 | motion |
| 2 | 2010-01-09 00:03:32 | 2010-01-09 00:04:27 | manual |
| 2 | 2010-01-09 00:14:22 | 2010-01-09 00:15:03 | motion |
| 2 | 2010-01-09 00:21:54 | 2010-01-09 00:22:35 | motion |
| 2 | 2010-01-09 00:23:51 | 2010-01-09 00:24:33 | motion |
| 2 | 2010-01-09 00:25:12 | 2010-01-09 00:25:54 | motion |
| 2 | 2010-01-09 00:26:57 | 2010-01-09 00:28:43 | motion |
| 2 | 2010-01-09 00:31:48 | 2010-01-09 00:32:30 | motion |

1/31

Search

2010 Jan

| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

☒ 1

☒ 2

☒ 3

☒ 4

☒ 5

☒ 6

☒ 7

☒ 8

☒ 9

☒ 10

☒ 11

☒ 12

☒ 13

☒ 14

☒ 15

☒ 16

☒ Motion
☒ Sensor

Fig 7-8 Event Search Interface

Step 2: Click the highlight date and select record channels.

Step 3: Checkmark the event type: motion and sensor.

Step 4: The events will be display in the event list box by clicking Search button.

Step 5: Double-click certain item to playback

File Management

Step 1: Enter into Search→File management. Refer to Fig 7-9:

Step 2: Select highlighted date and channels.

Step 3: Click “Search” button to search the recorded files.

File list

| Check | Channel | Start time | End time | Status |
|-------------------------------------|---------|---------------------|---------------------|--------|
| <input type="checkbox"/> | 1 | 2010-01-09 00:01:07 | 2010-01-09 00:02:16 | motion |
| <input type="checkbox"/> | 1 | 2010-01-09 00:03:28 | 2010-01-09 01:24:11 | manual |
| <input type="checkbox"/> | 1 | 2010-01-09 00:08:36 | 2010-01-09 00:09:31 | motion |
| <input type="checkbox"/> | 1 | 2010-01-09 00:10:10 | 2010-01-09 00:10:58 | motion |
| <input type="checkbox"/> | 1 | 2010-01-09 00:11:30 | 2010-01-09 00:12:15 | motion |
| <input type="checkbox"/> | 1 | 2010-01-09 00:14:48 | 2010-01-09 00:15:43 | motion |
| <input checked="" type="checkbox"/> | 1 | 2010-01-09 00:15:45 | 2010-01-09 00:17:09 | motion |
| <input type="checkbox"/> | 1 | 2010-01-09 01:24:11 | 2010-01-09 02:46:11 | manual |
| <input type="checkbox"/> | 1 | 2010-01-09 02:46:11 | 2010-01-09 03:19:45 | manual |
| <input type="checkbox"/> | 1 | 2010-01-09 17:39:52 | 2010-01-09 17:57:12 | manual |
| <input type="checkbox"/> | 2 | 2010-01-09 00:01:07 | 2010-01-09 00:01:53 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:02:18 | 2010-01-09 00:03:01 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:03:01 | 2010-01-09 00:04:12 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:03:32 | 2010-01-09 00:54:27 | manual |
| <input type="checkbox"/> | 2 | 2010-01-09 00:14:22 | 2010-01-09 00:15:03 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:21:54 | 2010-01-09 00:22:35 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:23:51 | 2010-01-09 00:24:33 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:25:12 | 2010-01-09 00:25:54 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:26:57 | 2010-01-09 00:28:43 | motion |
| <input type="checkbox"/> | 2 | 2010-01-09 00:31:48 | 2010-01-09 00:32:30 | motion |

All

None

Inverse

0/0

⏮

⏪

⏩

⏭

Lock

Unlock

Delete

Search

2010

▼

Jan

▼

Sun

Mon

Tue

Wed

Thu

Fri

Sat

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

☒ 1

☒ 2

☒ 3

☒ 4

☒ 5

☒ 6

☒ 7

☒ 8

☒ 9

☒ 10

☒ 11

☒ 12

☒ 13

☒ 14

☒ 15

☒ 16

Fig 7-9 File Management Interface

Lock: Select certain file item in the file list box and then click “Lock” button to lock this file that ca not be deleted or overlaid

Unlock: Select a locked file and then click “unlock” button to unlock this file

Delete: Select an unlock file and then click “delete” button to delete this file from file list

7.4.2 Remote Backup

Click Backup button to enter into backup interface. Refer to Fig 7-10:


| LIVE | | | | | SEARCH | BACKUP | CONFIG | TOOLS | INFO |
|---|----|----------------------|---------------------|--|---|--------|--------|-------|------|
| Data List | | | | |  Search | | | | |
| Check | CH | Start Time | End Time | Status | Start Time 2011-04-28 25 00 : 00 : 00 | | | | |
| <input checked="" type="checkbox"/> | 1 | 2011-04-27 23:50:35 | 2011-04-28 00:12:48 | | End Time 2011-04-28 25 23 : 59 : 59 | | | | |
| <input checked="" type="checkbox"/> | 1 | 2011-04-28 00:12:48 | 2011-04-28 00:34:58 | | Channel <input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 6 <input checked="" type="checkbox"/> 7 <input checked="" type="checkbox"/> 8 <input checked="" type="checkbox"/> 9 <input checked="" type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12 <input checked="" type="checkbox"/> 13 <input checked="" type="checkbox"/> 14 <input checked="" type="checkbox"/> 15 <input checked="" type="checkbox"/> 16 | | | | |
| <input checked="" type="checkbox"/> | 1 | 2011-04-28 00:34:58 | 2011-04-28 00:57:07 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 00:57:07 | 2011-04-28 01:19:16 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 01:19:16 | 2011-04-28 01:41:34 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 01:41:34 | 2011-04-28 02:03:47 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 02:03:47 | 2011-04-28 02:25:52 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 02:25:52 | 2011-04-28 02:48:02 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 02:48:02 | 2011-04-28 03:10:11 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 03:10:11 | 2011-04-28 03:32:20 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 03:32:20 | 2011-04-28 03:54:25 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 03:54:25 | 2011-04-28 04:16:35 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 04:16:35 | 2011-04-28 04:38:44 | | | | | | |
| <input type="checkbox"/> | 1 | 2011-04-28 04:38:44 | 2011-04-28 05:00:53 | | | | | | |
| <input type="button" value="All"/> <input type="button" value="Inverse"/> | | 1/16 | | <input type="button" value="Previous"/> <input type="button" value="First"/> <input type="button" value="Next"/> <input type="button" value="Last"/> | | | | | |
| File Path | | <input type="text"/> | | <input type="button" value="Browse"/> <input type="button" value="Backup"/> | | | | | |

Fig 7-10 Remote Backup Interface

Step1: Select channels, set the start and end time and then click "search" button to display the file information in the file list box

Step2: Select backup files and click "browse" button to set the path. Then click "backup" button to start backup. The backup files will be saved on user's PC.

7.5 Remote System Configuration

You can do remote setup of the device which includes functions like basic configuration, live configuration, record configuration, schedule configuration, alarm configuration, network configuration, PTZ configuration and user configuration. You should select an option from the menu list on the left and then setup the relative parameters. Only one user can do configuration setup at a given point of time. Click Config tab to enter into the below interface as Fig 7-11:

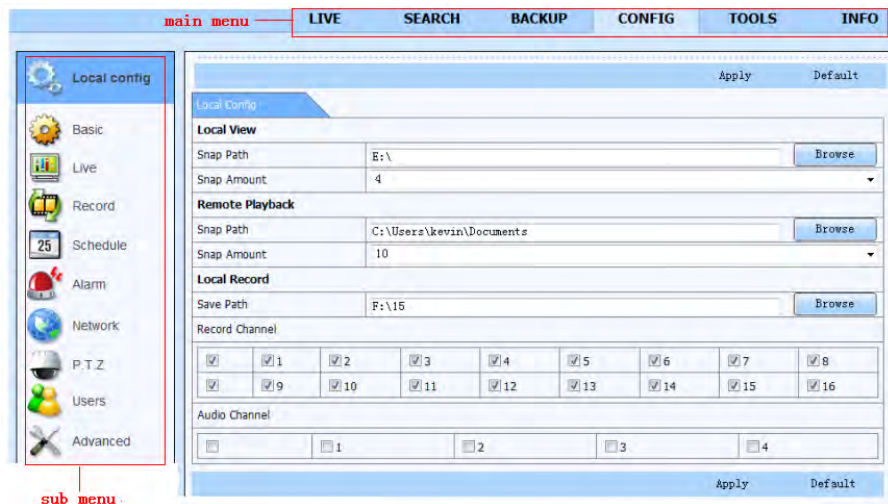


Fig 7-11 Remote System Configuration

The sub menu list and the options in every menu are similar to that of the DVR. Please refer to Chapter 4 Main Menu Setup Guide for more details.

7.6 Tools

Click on tool's tab to access the disk management tool. You can view the status of the HDD, change/view the read/write properties and can also format the HDD remotely.

7.7 Remote Information

The Info tab provides a web based interface to access the general information pertaining to the DVR's settings. It includes five submenus: System, Event, Log, Network and Online users. The sub menu list and the options in every menu are similar to that

of the DVR. Please refer to Chapter 6 System information for more details.

The screenshot shows the 'Log List' interface with the following data:

| Type | User Name | Time | IP Address |
|----------------------------------|-----------|---------------------|---------------|
| Backup Finished | admin | 2010-08-09 11:09:42 | 127.0.0.1 |
| Logon | admin | 2010-08-09 11:07:58 | 172.16.31.232 |
| Logoff | admin | 2010-08-09 11:07:53 | 172.16.31.232 |
| Logon | admin | 2010-08-09 11:07:25 | 172.16.31.232 |
| Logon | admin | 2010-08-09 11:07:23 | 172.16.31.232 |
| Logoff | admin | 2010-08-09 11:07:13 | 172.16.31.201 |
| Logoff | admin | 2010-08-09 11:07:13 | 172.16.31.201 |
| Modify Settings To Handle Vid... | admin | 2010-08-09 10:39:48 | 172.16.31.201 |
| Change Settings To Handle Se... | admin | 2010-08-09 10:39:16 | 172.16.31.201 |
| Change Settings To Handle Se... | admin | 2010-08-09 10:39:16 | 172.16.31.201 |
| Change Settings To Handle Se... | admin | 2010-08-09 10:39:16 | 172.16.31.201 |
| Change Settings To Handle M... | admin | 2010-08-09 10:38:51 | 172.16.31.201 |
| Change Settings To Handle M... | admin | 2010-08-09 10:38:51 | 172.16.31.201 |
| Modify Area For Motion Detect... | admin | 2010-08-09 10:38:51 | 172.16.31.201 |
| Change Settings Of Inbox | admin | 2010-08-09 10:37:24 | 172.16.31.201 |
| Change Settings Of Outbox | admin | 2010-08-09 10:37:24 | 172.16.31.201 |
| Logon | admin | 2010-08-09 10:34:26 | 172.16.31.201 |
| Add User | admin | 2010-08-09 10:33:40 | 172.16.31.201 |
| Add User | admin | 2010-08-09 10:33:35 | 172.16.31.201 |
| Add User | admin | 2010-08-09 10:33:29 | 172.16.31.201 |

Below the table, there is a '1/5 export Path' label, a text input field, and 'Browse' and 'Export' buttons. On the right side, the 'Start Time' is set to 2010-08-09 00:00:00 and the 'End Time' is set to 2010-08-09 23:59:59. A list of checked system functions includes System Control, Config, Playback, Backup, Media Search, View Information, and Error.

Fig 7-12 Remote Information Search

Note: There may be slight differences with respect to functions of remote surveillance between through IE and through Apple PC. Here we only take IE remote access for example.

8 Mobile Surveillance

This DVR supports mobile surveillance by phones with Windows mobile, symbian, android, Iphone and Blackberry OS. At the same time, it supports 3G network. We tested Dopod D600 (WM5) and Dopod S1 (WM6), which work fine with the DVR. If you want to make mobile surveillance, please enable network service on the DVR first and refer to Chapter 4.6 Network configuration. The below is the use instructions on mobile client end for five OS.

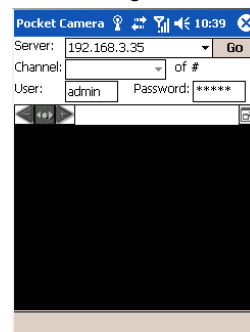
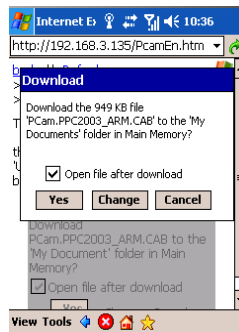
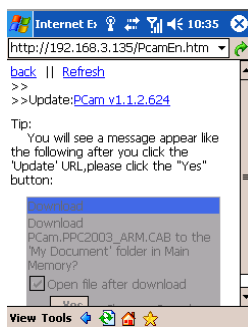
8.1 By Phones with Windows Mobile OS

Step1 : Firstly activate the network access on mobile phone and then run “Internet Explorer”. Input the server’s address and the connection is built up shown as below picture on the left:

Step2 : Click on the software name. A dialog box pops up as below picture in the middle:

Step3 : Click “Yes” to start downloading and installing:

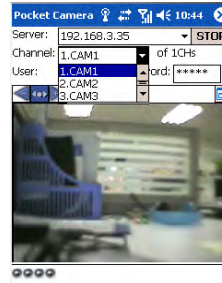
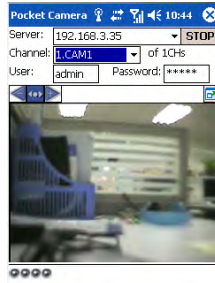
Step4 : PCam will be opened automatically after installation. Refer to the picture on the right:



Step5 : Input the server’s address, ID and password respectively in the field of “Server”, “User” and “Password”, and click “Go”

to log on the server. Refer to the below picture on the left:

Step6 : Camera 1 is the default channel after login. Change the channel in rolling-down menu of “Channel”. Refer to the below picture on the right:



Notice: User name and password here are the same with that used on the DVR. The default is admin and 123456.

8.2 By Phones with Symbian OS

Please use the smart phones with symbian version supported by this unit. The detail information is as follows:

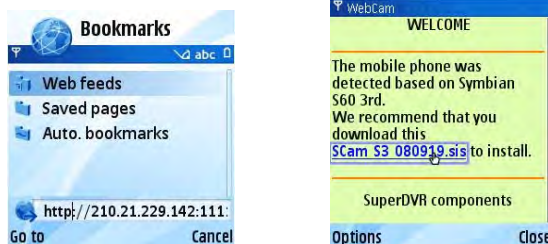
| | |
|---|---------|
| Symbian S40 | support |
| Symbian UIQ | support |
| Symbian S80 | support |
| Symbian S60 | support |
| Symbian S60 3 rd Edition-Symbian OS v9.1 | support |
| Symbian S60 3 rd Edition with FP 1-Symbian OS v9.2 | support |
| Symbian S60 3 rd Edition with FP2-Symbian OS v9.3 | support |
| Symbian S60 5 th Edition-Symbian OS v9.4 | support |
| Symbian S60 5.1 Edition-Symbian OS v9.5 | support |

Step1 : Enable the network access on mobile phone. Then run Web browser.

Step2 : Input the DVR server's IP address in a new-built bookmark. Click this bookmark to connect to the DVR. Refer to the

picture on the left:

Step3 : A welcome window will pop up and requires a package. Click the software name to download. Refer to the picture on the right:



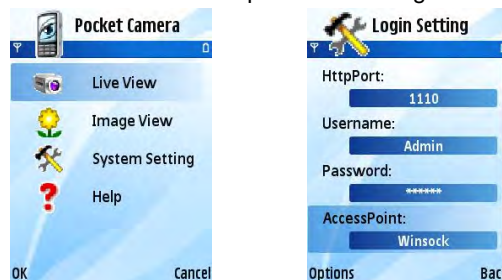
Step4 : A security windows will pop up after downloading and ask if install the package. Click YES to install.

Step5 : A Scam shortcut icon appears on the system menu.

Step6 : Run Scam program. It will enter a function interface. Refer to the picture on the left:

Step7 : Click System setting--->Login Setting to enter login interface. Refer to the picture on the right:


Live view: to do mobile live view
Image view: to check the pictures
 Snapped in live view
System setting: Login setting
 And Alarm setting.
Help: function indication and help



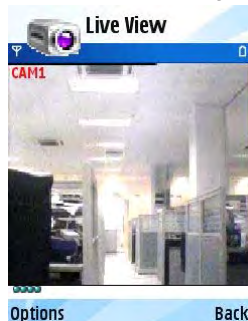
Step8 : Input the server's address, ID and password respectively. Then save.

Notice: About Access point, there may be different access points in different countries or from service providers.

Step9 : Enter Live View, it will connect the server and display pictures. Refer to the picture on the left:

 **Notice**: User name and password here are the same with that used on the DVR. The default is admin and 123456.

Step10 : In Live View, users can snap pictures, change channels and control PTZ. Refer to the picture on the right:

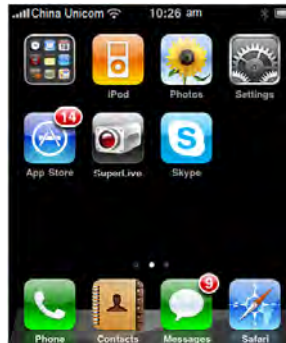


8.3 By Phones with Iphone OS

1. Install through Iphone.

Step 1. Open App Store function of Iphone.

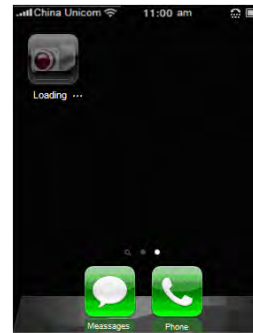
Step 2. Enable "search"  function to search "Superlive".



Step 3: Click Superlive-pro, enter into “introduce” interface and then click “FREE”button. Now this button will change into “INSTALL”



Step 4: Input iTunes Store password and then click “OK”. The software will be installed automatically.



Note: If it is the first time for user to operate, please enter user ID; if there is no Store account, user needs to apply for one.


2. Install through PC.



Step 1: Install iTunes store in PC and then login

Step 2: Connect iPhone and PC



Step 3: Enable “search”  function to search “Superlive-Pro”



Step 4: Click “free application” button



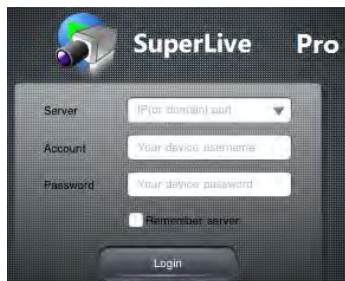
Step 5: Input apple ID and password and then click “acquire”

Step 6: Checkmark “synchronously apply program” and “Superlive-pro”, and then click “Apply” button

Operation Instruction for Superlive-Pro

1. Login interface

Enter
Click
server



server's IP address (or domain name), user name and password
"Remember server" to save the setting; click ▼ button can quick input saved address, user name and password.

2. Main Interface



| | | | |
|--|------------------|--|--------------|
| | Image view | | Four channel |
| | Playback | | Snap |
| | Setting | | Record |
| | Information view | | Audio |
| | Server list | | Talk |
| | Logoff | | Color |
| | Single channel | | PTZ |





| | | | |
|--------|-------------------------------------|--------|----------------------------------|
| | Upward rotates the PTZ | | Downward rotates the PTZ |
| | Leftward rotates the PTZ | | Rightward rotates the PTZ |
| | Stop rotating the PTZ | | Zoom In/Focus In/Iris Add |
| | Zoom Out/Focus Out/Iris Sub | | To enter into the next interface |
| | To return to the previous interface | Preset | select the preset point |
| Cruise | Set the cruise line | Speed | Rotate speed of the PTZ |

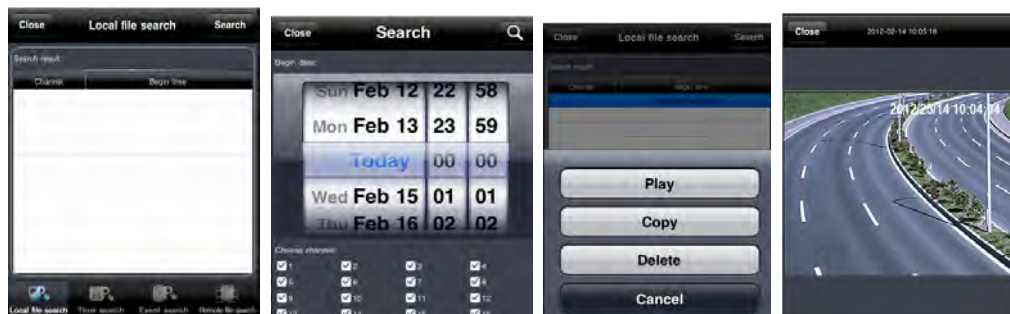
3. Image View

After the image is snapped, you can click icon to enter into the image view interface. Select the image and click it to amplify this image. Then you can copy or delete the image. Click 'close' button to return to the previous interface.



4. Playback





Click  icon to enter into the playback interface. Then click 'Search' button, select the time and channel to playback and click  button. Now you can see the local file list. Select a file and click play button to playback. You can also copy or delete the file. Finally, click 'Close' button to return to the previous interface.



You can also search file to playback through time search, event search and remote file search. Please click the related button.

5. Server list




Click  button to enter into server list interface. You can click  icon to add a server list. After you add the list, you can click  icon to edit the server information and click  icon to delete this server information.

6. Configuration interface




Click
basic,
steps

 icon to enter into Settings interface. You can set many properties, such as local, live, record, schedule, alarm, network, etc. Please see chapter four in respect of setting for more details.

7. Information View Interface

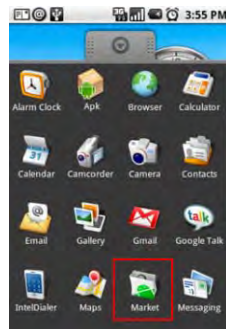
the
the
of



Click  icon to enter into information view interface. You can check the information of system, network and online users. In the system interface, you can see information of device name, device ID, hardware version, MCU version and so on. In network interface, you can see the information of http port, server port, IP address, gateway, network status, etc. In the online users interface, you can see the information the current online users.

8.4 By Phones with Android OS

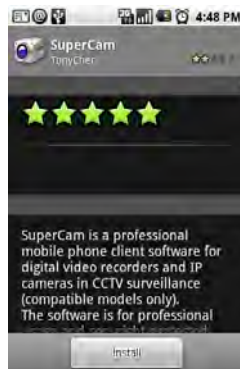
Software Installation



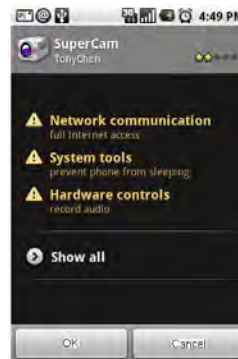
Step 1: Run Google Market program



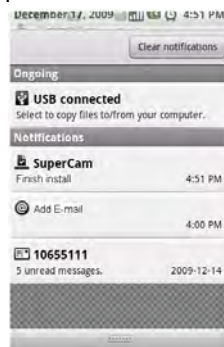
Step 2: Search "Supercam"



Step 3: Press "Install" button



Step 4: Click "OK" button



Step 5: You can view the download and install process in notifications; Once finishing downloading, the software will install automatically.

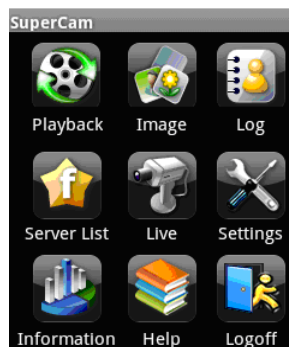
Login



Enter into server's IP address (or domain name), user's ID and password.

Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

Main menu



| | | | |
|----------------------|--------------------------------------|----------------------|----------------------|
| 【Playback】 | playback record file | 【Image】 | image view |
| 【Log】 | log record | 【Server List】 | device list |
| 【Live】 | live view | 【Settings】 | software setting |
| 【Information】 | device information view | 【Help】 | software help center |
| 【Logoff】 | logoff and return to login interface | | |

Live view



| | | | | |
|--|--------------|--|----------------|----------|
| | Stop playing | | Single display | channel |
| | Screen mode | | Four display | channels |
| | Snap | | PTZ | |
| | Talk | | Record | |
| | Live audio | | Hide | |

Image view



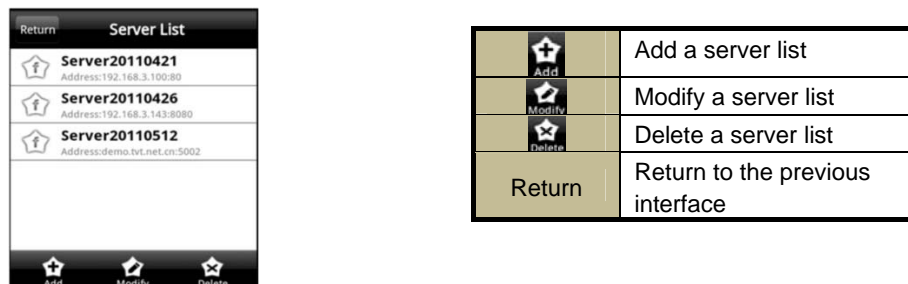
| | |
|--|----------------------|
| | The first picture |
| | The previous picture |
| | Next picture |
| | The last picture |
| | Zoom in |
| | Zoom out |
| | Delete |

Record playback



Click Playback icon in the Main Menu interface to enter into the playback interface. First, choose channel. Second, select the record file and click it to playback. Finally, click 'Return' button to return to the previous interface.

Server list



Config interface



| | |
|------------------------|---|
| Alarm setting | If Audio alarm is enabled, when Video Loss/Sensor/Motion happen , sound alarm will be triggered; If shake Alarm is enabled, when Video Loss/Sensor/Motion happen , shake alarm will be triggered. |
| Storage setting | User can setup the relevant parameters of mobile video. This function can be valid only insert SD card. |
| Display setting | User can setup display order or display mode. |

Information view



8.5 By Phones with Blackberry OS

1. Open the browser of BlackBerry phone and enter sever address

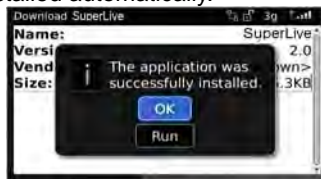
2. Click “Supercam” to link



3. Click “Download” button on the popup interface and the download progress will be shown.

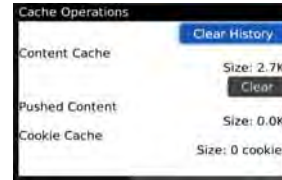
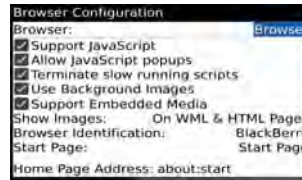


4. Finished downloading, the software will be installed automatically.



Note: If the software fails to download, please check in accordance with the following steps:

1. Check whether the network of mobile phone is normal or not
2. Check whether DVR server connect network normally or not
3. Modify the option of Browser Configuration.
 - (1) Enter into Menu->Option->Browser Configuration; Refer to the following figure on the left.
 - (2) Enter into Menu->Option->Cache Operations, clear up browser cache. Refer to the below picture on the right:



Note : When user used the Supercam software in mobile phone with touch screen, there will be compatible problem.

Solution: Enter into Options Menu->Advance options->Applications->Supercam and click “Disable Compatibility” button. This problem will be solved.

Login



Enter server's IP address (or domain name), user's ID and password.

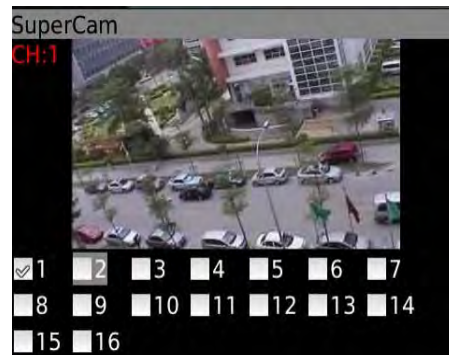
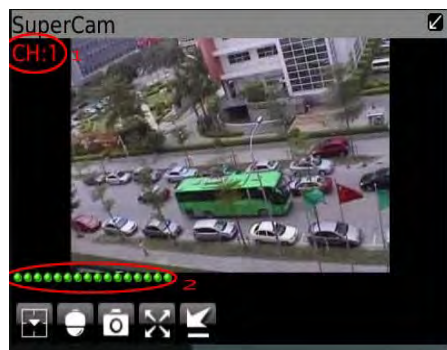
Click “Remember server” to save the setting; click ▼ button can quick input saved server address, user name and password.

Main interface















| | | | |
|--------------------|----------------------|--------------------|--------------------------------------|
| Image | image view | Log | log record |
| Server List | device list | Settings | software setting |
| Live | live view | Information | device information view |
| Help | software help center | Logoff | logoff and return to login interface |

Live view



Note: User can click  Return button on the BlackBerry phone to return the previous interface.

| Mark 1 | Current viewing channel | Mark 2 | Channel status |
|---|---------------------------|---|---|
|  | Switch channels |  | PTZ, click to switch to Fig 2 interface |
|  | Snap |  | Full screen |
|  | Background alarm |  | Stop rotating the PTZ |
|  | Upward rotates the PTZ |  | Downward rotates the PTZ |
|  | Leftward rotates the PTZ |  | Rightward rotates the PTZ |
|  | Zoom In/Focus In/Iris Add |  | Zoom Out/Focus Out/Iris Sub |
| Preset | Select the preset point | Group | Set the cruise line |

Server list

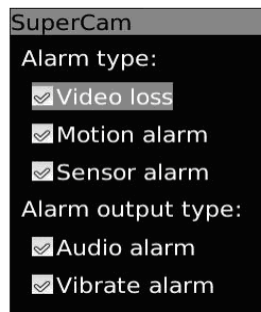


[Add] Add a server list

[Modify] Modify a server list

[Delete] Delete a server list

Software configuration



Alarm type: Setup the type of background alarm

(Video Loss/Sensor/Motion)

Alarm output type: Setup prompt type of background

Alarm (sound alarm/ bibrate alarm)

Information view



Device ID: the current connection device ID

Software version: the current connection device software version

Build date: the current connection device build date

Software version: the software version of mobile phone in use

Software build date: the software build date of mobile phone in use

Appendix A FAQ

Q1. Why the DVR doesn't turn on even after connecting to the power?

- a. The power adapter could have gone bad. Please change a new power adapter
- b. The power from the adapter may be not enough for operating the DVR. Please use the power adaptor supplied along with the DVR.
- c. It could be a hardware problem.

Q2. There is no menu displayed and only has live image display.

- a. Check whether the monitor is connected to the main video out and not the spot out. The monitor might be connected to VGA port whereas the DVR may be set for output through BNC or vice versa. Long press ESC key to toggle the output modes.

Q3. The DVR LED turns on, however there is no output.

- a. The power from the adapter may be not enough for operating the DVR. Please use the power adaptor supplied along with the DVR.
- b. It could be a wiring issue. Please check the connection for the same.
- c. Check the monitor settings.

Q4. Why are no images displayed on few or all the channels of the DVR?

- a. It could be a wiring issue. Please check the cable and the ports of the cameras and DVR.
- b. The problem can also be related to cameras. Please check the same.
- c. Please make sure that the channels are not programmed as hidden channels and check the status from admin login.

Q5. Cannot find HDD

- a. The power from the adapter may be not enough for operating the DVR. Please use the power adaptor supplied along with the DVR.
- b. It could be a wiring issue. Please check the power and data cables of the HDD.

c. The HDD could have gone bad. Change a new one.

Q6. Cannot record

- a. Make sure the HDD was formatted prior to use.
- b. Maybe the user hasn't enabled the record function or has done incorrect setup. Please refer to Chapter 5.
- c. Maybe HDD is full and thus the DVR is not able to record. Check HDD information from Disk management and if required, please enable the recycle function.
- d. Check the attributes of the HDD. It might be set to read only mode.
- e. The HDD could have gone bad. Please change another one.

Q7. Mouse does not work.

- a. The mouse should be connected to the USB port at the rear side.
- b. After connecting the mouse, allow the DVR to detect the mouse for seconds. If not detected, try restarting the DVR.
- c. The mouse may be incompatible or faulty. Please change a mouse.

Q8. Cannot download ActiveX control.

- a. IE browser blocks activeX. Please do setup as per the steps mentioned below.

① Open IE browser. Click Tools-----Internet Options....



- ② select Security-----Custom Level....Refer to Fig 8-1
 - ③ Enable all the sub options under “ActiveX controls and plug-ins”. Refer to Fig 8-2
 - ④ Then click ok to finish setup.
- b. Other plug-ins or anti-virus may block ActiveX. Please disable or do the required settings.



Fig 8-1



Fig 8-2

Q9: DVR displays “please wait...”all the time

- a. HDD power cable and data cable may not be well connected. Please check the connections for HDD.
- b. It is also possible that the DVR was forced to stop because HDD has a bad sector and it may have caused the system to

halt. Check with a good known HDD or try formatting the existing HDD.

Q10: How to input password and numbers in the interface?

Click the password or the input box a small keyboard will pop up. Please select characters to be input (the initial password is 123456), or you can use the digital keys on the front panel, or the digital keys on the remote controller.

Q11: A hard disk is being identified as a new device however it was being used with another DVR of same model. Should it be formatted prior use?

It is possible to migrate an HDD from one DVR to another provided that the DVRs are of the same model and that the HDD being migrated would be used as the sole disk in the new DVR. However in cases where the new DVR already contains a HDD, the migrated disk being installed would have to be formatted. In general migrating disks from one DVR to another is not recommended.

Q12: What is the minimum configuration required for remote monitoring?

| PC Module | Parameters |
|-------------|---|
| CPU | Intel Celeron 2.4G |
| Motherboard | Intel 845 |
| HDD | 80G |
| RAM | 512M |
| VGA | NVIDIA GeForce MX440/FX5200 ATIRADEON 7500/X300 |
| OS | Windows 2000(SP4 above) /Windows XP(SP2 above) /VISTA |
| DirectX | 9.0 |

Q13: What is the PC configuration for 16-ch real time viewing of mainstream?

| PC Module | Parameters |
|-------------|--|
| CPU | Intel Core(TM)2 Duo CPU E4600 |
| Motherboard | G31/P31 chip |
| HDD | 80G |
| RAM | 1GB |
| VGA | GMA3100/NVIDIA GeForce 8400/ ATI RADEON HD3450 |
| OS | Windows 2000(SP4 above) /Windows XP(SP2 above) VISTA |
| DirectX | 9.0 |

Q14: How to handle the situation that the codec Control is blocked when downloading in the VISTA or Win7 system?

This problem can be fixed in two ways:

- Enter Control Panel→User Account and Family Safety → User Account Control (refer to Fig 14-1); click Turn User Account on or off. Cancel Use User Account Control (UAC) to help protect your computer.
- Right click IE browser (refer to Fig 14-2), select Run as administrator to run browser.

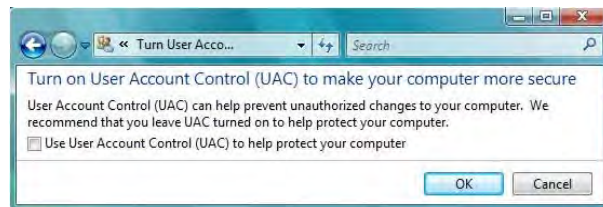


Fig 14-1

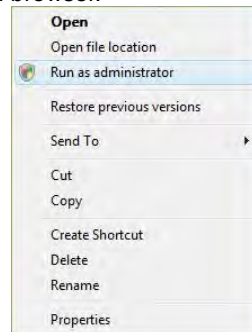


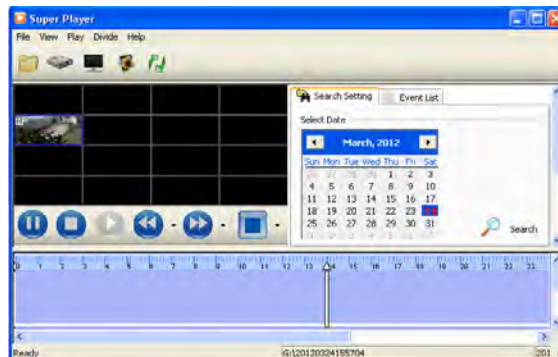
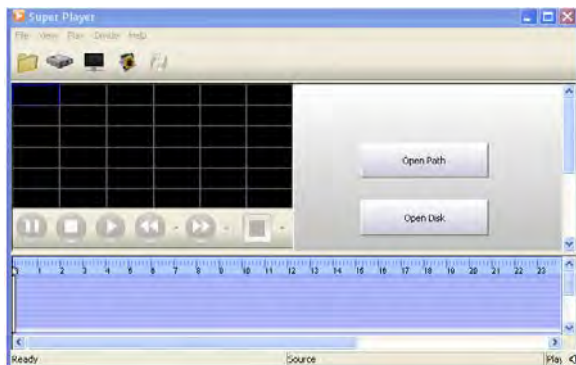


Fig 14-2

Q15. How to play the backup file?

- a. Insert your USB device where the backup files are saved in the USB port of PC. If your files are saved in NVR format, you must have already download the backup player box before doing backup. Then double click to open your USB disk to find

your backup files and backup player. Double click  icon to install backup player. After you install it, open this player and click “Open Path” button to open your backup file. Next, click  play button to play the backup file. Double click the image and then right click to enable audio. If you save your backup files in AVI format, you can directly open your file by using the media player which supports this format.



Appendix B Calculate Recording Capacity

Users can calculate the required size of hard disk according to the total recording duration and DVR recording settings. The DVR uses fixed video bit rate. The below are the details at different settings for CBR.

| Video Format | Resolution | Frame Rate Totally(FPS) | Video Quality | Bit Rate (kbps) | Used Space(MB/h) |
|--------------|------------|----------------------------|---------------|--------------------|------------------|
| NTSC | D1 | 30 | Highest | 2M | 915 |
| | | | Higher | 1.5M | 700 |
| | | | Medium | 1M | 465 |
| | | | Low | 768K | 297 |
| | | | Lower | 512K | 241 |
| | | | Lowest | 256k | 115 |
| PAL | D1 | 25 | Highest | 2M | 910 |
| | | | Higher | 1.5M | 712 |
| | | | Medium | 1M | 468 |
| | | | Low | 768K | 297 |
| | | | Lower | 512K | 241 |
| | | | Lowest | 256K | 112 |

The calculation format is: **Total Recording capacity =Used space per hour (MB/h) (coverage rate of hard disk) × recording time (hour) ×channel numbers**

For instance, one customer uses PAL cameras, set resolution to D1, video quality to Lowest, frame rate to 25 fps for enabling total 16 channels. He wants the unit to record continuously in a month. Below is the calculation:

Total Recoding capacity =112 (mb/h) X 24(hours/day) X30(days) X16(channels)= 1290240 (MB)=1260(GB)

Therefore, customers just install one SATA HDDs with 1.5TB, it can almost record for one month.

Appendix C Compatible Devices

1. Compatible USB drive after test.

| Brand | Capacity |
|---------------|----------------|
| SSK | 512MB, 1G, 2GB |
| Netac | 4GB |
| Kingston | 2GB |
| Aigo | 2GB |
| Smatter vider | 1GB |
| SanDisk | 4GB |

2. Compatible SATA CD/DVD writers after test

| Brand | Model |
|---------|------------------|
| TECLAST | GH22NP20/TL-22XD |
| BENQ | DW220S-0K4 |
| LITEON | DH—20A6S01C |
| LITEON | DH-20A4P02C |
| SAMSUNG | TS-H653B |

3. Compatible HDD list

| Brand | Capacity |
|-----------------------|------------------------------|
| Seagate Barracuda | 80G/160G/250G/320G /1.5T/2TB |
| Seagate SV35.3 | 1T |
| Seagate Pipeline HD.2 | 500G |
| Maxtor Diamondmax | 160G |
| HITACHI Deskstar | 80G/160G |
| WD WD1600JS | 160G |
| Samsung HD161HJ | 160G |

Appendix D VDT2504HE Specifications

| | |
|---|--|
| Compression format | Standard H.264 Baseline |
| Video output | Composite : 1.0V p-p/75Ω BNC×2 , VGAX1 |
| Video input | Composite : 1.0V p-p/75Ω BNC×4 |
| VGA Resolution | 1280*1024 /1024*768/ 800*600 |
| Record Resolution | 352*288/704*576 (PAL), 352*240/704*480(NTSC) |
| Display Frame Rate | 100FPS (PAL), 120FPS (NTSC) |
| Record Frame Rate D1 | 100FPS (PAL), 120FPS (NTSC) |
| Audio input | RCA X4 |
| Audio output | RCA X1 |
| Alarm input | NO or NC 4CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2(one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power supply | 12V4A |
| Temperature | 0°C-50°C |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤30W |

Appendix E VDT2508HE Specifications

| | |
|---|--|
| Compression format | Standard H.264 Baseline |
| Video output | Composite : 1.0V p-p/75Ω BNC×2 , VGAX1 |
| Video input | Composite : 1.0V p-p/75Ω BNC×8 |
| VGA Resolution | 1280*1024 /1024*768/ 800*600 |
| Record Resolution | 352*288/704*576 (PAL), 352*240/704*480(NTSC) |
| Display Frame Rate | 200FPS (PAL), 240FPS (NTSC) |
| Record Frame Rate D1 | 200FPS (PAL), 240FPS (NTSC) |
| Audio input | RCA X4 |
| Audio output | RCA X1 |
| Alarm input | NO or NC 8CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2(one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power supply | 12V4A |
| Temperature | 0°C-50°C |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤30W |

Appendix F VDT2516HE Specifications

| | |
|---|--|
| Compression format | Standard H.264 Baseline |
| Video output | Composite : 1.0V p-p/75Ω BNCx2, VGAX1 |
| Video Input | Composite : 1.0V p-p/75Ω BNCx16 |
| VGA Resolution | 1280*1024 /1024*768/ 800*600 |
| Record Resolution | 352*288/704*576 (PAL), 352*240/704*480(NTSC) |
| Display Frame Rate | 400FPS (PAL), 480FPS (NTSC) |
| Record Frame Rate D1 | 400FPS (PAL), 480FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 16CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2(one for backup, another for USB mouse) |
| Disk info | SATA x 2+DVD-RW x 1 or SATA x 3 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0°C-50°C |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

VDT2504HE-B 4-CH Specifications

| | |
|---|---|
| Compression format | H.264 Main Profile |
| Video output | Composite : 1.0V p-p/75Ω BNC×2, VGAX1 |
| Video Input | Composite : 1.0V p-p/75Ω BNC×4 |
| HDMI/VGA Resolution | 1920×1080/1280×1024 /1024×768/ 800×600 |
| Record Resolution | 352*288/704*576 (PAL), 352*240/704*480(NTSC) |
| Display Frame Rate | 100FPS (PAL), 120FPS (NTSC) |
| Record Frame Rate | 100FPS (PAL), 100FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 4CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2 (one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0℃-50℃ |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

VDT2508HE-B 8-CH Specifications

| | |
|---|---|
| Compression format | H.264 Main Profile |
| Video output | Composite : 1.0V p-p/75Ω BNC×2, VGAX1 |
| Video Input | Composite : 1.0V p-p/75Ω BNC×8 |
| HDMI/VGA Resolution | 1920×1080/1280×1024 /1024×768/ 800×600 |
| Record Resolution | 352*288/704*576 (PAL), 352*240/704*480(NTSC) |
| Display Frame Rate | 200FPS (PAL), 240FPS (NTSC) |
| Record Frame Rate | 200FPS (PAL), 240FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 8CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2 (one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0℃-50℃ |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

VDT2516HE-B 16-CH Specifications

| | |
|---|---|
| Compression format | H.264 Main Profile |
| Video output | Composite : 1.0V p-p/75Ω BNC×2, VGAX1 |
| Video Input | Composite : 1.0V p-p/75Ω BNC×16 |
| HDMI/VGA Resolution | 1920×1080/1280×1024 /1024×768/ 800×600 |
| Record Resolution | 352*288/704*576 (PAL), 352*240/704*480(NTSC) |
| Display Frame Rate | 400FPS (PAL), 480FPS (NTSC) |
| Record Frame Rate | 400FPS (PAL), 480FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 16CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2 (one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0℃-50℃ |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

VDT2504HE-C 4-CH Specifications

| | |
|---|--|
| Compression format | H.264 Main Profile |
| Video output | Composite : 1.0V p-p/75Ω BNC×2, VGA×1, HDMI×1 |
| Video Input | Composite : 1.0V p-p/75Ω BNC×4 |
| HDMI/VGA Resolution | 1920*1080/1280*1024 /1024*768/ 800*600 |
| Record Resolution | 960*576/704*576/352*288 (PAL), 960*480/704*480/352*240(NTSC) |
| Display Frame Rate | 100FPS (PAL), 120FPS (NTSC) |
| Record Frame Rate | 100FPS (PAL), 100FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 4CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2 (one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0℃-50℃ |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

VDT2508HE-C 8-CH Specifications

| | |
|---|--|
| Compression format | H.264 Main Profile |
| Video output | Composite : 1.0V p-p/75Ω BNC×2, VGA×1, HDMI×1 |
| Video Input | Composite : 1.0V p-p/75Ω BNC×8 |
| HDMI/VGA Resolution | 1920*1080/1280*1024 /1024*768/ 800*600 |
| Record Resolution | 960*576/704*576/352*288 (PAL), 960*480/704*480/352*240(NTSC) |
| Display Frame Rate | 200FPS (PAL), 240FPS (NTSC) |
| Record Frame Rate | 200FPS (PAL), 240FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 8CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2 (one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0℃-50℃ |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

VDT2516HE-C 16-CH Specifications

| | |
|---|--|
| Compression format | H.264 Main Profile |
| Video output | Composite : 1.0V p-p/75Ω BNC×2, VGA×1, HDMI×1 |
| Video Input | Composite : 1.0V p-p/75Ω BNC×16 |
| HDMI/VGA Resolution | 1920*1080/1280*1024 /1024*768/ 800*600 |
| Record Resolution | 960*576/704*576/352*288 (PAL), 960*480/704*480/352*240(NTSC) |
| Display Frame Rate | 400FPS (PAL), 480FPS (NTSC) |
| Record Frame Rate | 400FPS (PAL), 480FPS (NTSC) |
| Audio Input | RCA X4 |
| Audio output | RCA X1 |
| Alarm Input | NO or NC 16CH |
| Alarm output: | 1CH |
| Record Mode | Manual / Sensor /Timer / Motion detection |
| Simplex/Duplex/Triplex | Pentaplex |
| Network Interface | RJ45 (LAN, INTERNET) |
| PTZ control | YES |
| Communication interface | RS485, USB2.0 x 2 (one for backup, another for USB mouse) |
| Disk info | SATA x 1+DVD-RW x 1 or SATA x 2 |
| Remote controller | YES |
| Power Supply | 12V4A |
| Temperature | 0℃-50℃ |
| Humidity | 10%-90% |
| Average Operating Power (Excluding HDD) | ≤40W |

450011000153 A4